

This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

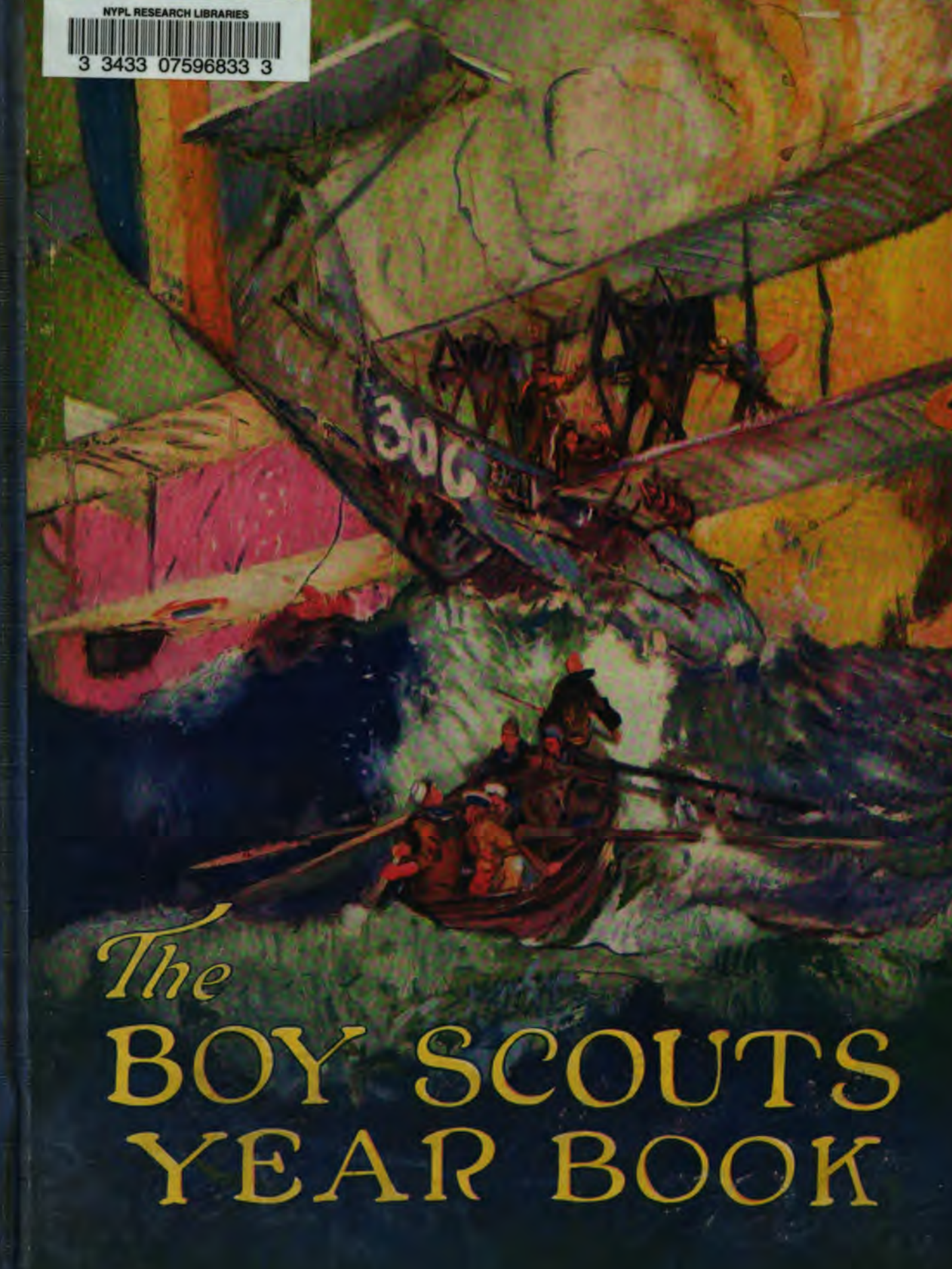
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

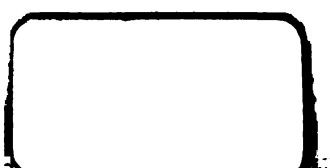
Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

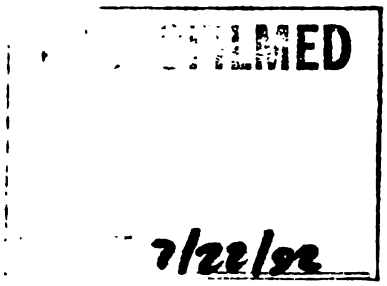
NYPL RESEARCH LIBRARIES
3 3433 07596833 3



The BOY SCOUTS YEAR BOOK






ED
7/22/92


NAME


BE PREPARED

The BOY SCOUTS YEAR BOOK

Edited by

FRANKLIN K. MATHIEWS

Chief Scout Librarian
Boy Scouts of America



Published for
THE BOY SCOUTS OF AMERICA

D. APPLETON AND COMPANY
NEW YORK LONDON

THE NEW YORK
PUBLIC LIBRARY
301867A
ASTOR, LENOX AND
TILDEN FOUNDATIONS
R 1927 L



COPYRIGHT, 1920, BY
D. APPLETON AND COMPANY

COPYRIGHT, 1919, 1920, BY
THE BOY SCOUTS OF AMERICA

PRINTED IN THE UNITED STATES OF AMERICA



THE 8,000,000 BOYS OF SCOUT AGE IN THE UNITED STATES

WHAT'S IN THIS BOOK

"Hip! Hip!! Hooray!!! Boy Scouts"

Edward, Prince of Wales; Leopold, Crown Prince of Belgium; Sir Douglas Haig, Pope Benedict XV, like many other people, approve of the Boy Scout Movement.

"The Thrill of High Adventure"

"The Flying Parson" talks about the scout laws in connection with high adventure.

"Model Aeroplanes"

Francis A. Collins tells boys how to enjoy the new sport of making and flying model aeroplanes.

"Abraham Lincoln—True Scout"

Ida M. Tarbell views Lincoln from the standpoint of the scout—he lived up to the law before the day of the Boy Scouts of America.

"Animal Engineers"

A great naturalist, Raymond L. Ditmars, considers the beaver the most intellectual animal and tells why.

"Backwoods Stunts"

Dan Beard tells how to take care of food and tools in the pioneer way.

"Camping the Buckskin Way"

Expert advice from Frederick K. Vreeland, a distinguished member of the Camp Fire Club of America.

"The Uniform of the Smile"

Colin H. Livingstone, President of the National Council, B. S. A., presents in an unusual way one of the scout laws.

"Pops of Popular Science"

Items of interest about science and several other subjects.

"How to Make a Hogan"

Shelters for over night hikes are described by Dan Beard.

"Woodsy Cookery"

Rules and recipes for good things to eat at camp by Ladd Plumley.

"Trout Fishing for Boys"

Ernest Warren Brockway tells the boys about some of the wily trout's ways.

WHAT'S IN THIS BOOK
(CONTINUED)

" Packing the Buckskin Way "
The first white man to ascend Mt. McKinley, Belmore Brown, who knows all about such subjects, tells how to do it.

" Boone—Torch Bearer "
One of William Heyliger's illuminating character sketches.

"The Great Brown Bears of Alaska"
A naturalist of world reputation, Dr. William T. Hornaday, writes delightfully of the species and tells some of their personal traits of the specimens in the New York Zoological Park.

"How to Make a Wetzel Knife Scabbard"
Carry your scout knife the scout way—make a scabbard the Dan Beard way.

"In the Scout Cave"
More verses and talks from the scouts' old friend, the Cave Scout.

"Four-Footed Folk"
Arthur F. Rice writes of the little forest animals as one who loves them.

"The Real Robinson Crusoe"
Francis Arnold discusses the claims of the Portuguese Fernar Lopez, in opposition to those of the English sailor Alexander Selkirk, to this title.

"Wireless for Amateurs"
Little lessons by "Spark Gap" for ambitious students of radio.

"Cherokee Secrets About Bows and Arrows"
Told by a real Indian, E. Roger Eubanks.

"On Being Lost"
Instructions by George Gladden on how to behave when you lose your way in the woods and how to get your bearings.

"Pioneering and Woodcraft"
Dan Beard tells about clothes racks and bridges for the benefit of pioneering scouts.

"Buffalo Bill and the Buffalo Bull"
"Old Pioneer," who used to go hunting with Buffalo Bill, tells about one such occasion.

WHAT'S IN OUR STORIES

"Answering the Challenge"

A young bull elk and a panther meet in the winter woods and battle—battle to the death. Irving Crump is the author.

"Under the Southern Cross"

What happened in a South Sea Island Mission Church one Christmas. J. Allan Dunn is the author.

"The Mysterious Stranger"

A tale of England long ago—in 960—when the spirit of King Arthur aided a brave company of soldiers, written by John R. Neill.

"Codfish Possibilities"

The strangest adventures that ever befell a cook book as related by the Limejuicer in a Wilbur S. Boyer "Johnny Kelly" tale.

"The Emerald Buddha"

Borneo—an emerald of fabulous value—a den of poisonous snakes—a faithful native—a treacherous half-breed—and two American boys—are some of the elements in John Garth's story.

"Quantrell of the Santa Fe Trail"

Romance and adventure, characteristic of the days of the Forty-Niners, abound in this story by Edward Leonard.

WHAT'S IN OUR STORIES

(CONTINUED)

"The Poor Little Rich Boy"

Joseph B. Ames tells how a troop of scouts learned to pity the boy they had envied.

"With the Aid of Some Matches"

The Clown almost misses a big important house party. This story by George G. Livermore tells how a few matches helped him out of his difficulty.

"Down the Salwin"

How a boy, by means of two pieces of bamboo, saved a garrison town from an army of savages; told by C. M. P. Cross.

"Old Doc Peterson's Divining Rod"

A treasure hunt carried on under amusing conditions told by Frank Farrington.

"The White Arab"

Mecca—horrors and mystery—a thrilling tale written by Denzil C. Lees.

"Worthless Wallace"

A most unusual story by Irving James concerning the singular adventures of a Circus Seal.

"Rounding up the Man Eater"

Captain A. P. Corcoran tells of a very exciting rescue by the Uganda Mounted Scout Troop.

THE COMPLETE CONTENTS

	PAGE
Answering the Challenge	17
The Thrill of High Adventure	25
Making Model Aeroplanes	28
The Emerald Buddha	33
Abraham Lincoln—True Scout	42
Animal Engineers	47
Backwoods Stunts	51
Codfish Possibilities	54
Stone Soup	59
Boone, the Torch Bearer	60
Hip! Hip! Hurrah!! Boy Scouts	62
Greetings from Prince Edward	64
Rounding Up the Man-Eater	66
Scout First Aiders	71
A Boy Scout Hogan	72
Capturing Alaskan Mountain Sheep	74
Down the Salwin	81
What's in a Name?	88
Camping the Buckskin Way	90
Don't Fight Your Pack	98
Under the Southern Cross	101
The Hydrophone	108
Packing the Buckskin Way	109
Taps	112
The Emerald-Buddha II	113
The Great Brown Bears of Alaska	125
Cherokee Secrets about Bows and Arrows	130
The Bold Dream That at Last Came True	135
The Uniform of the Smile	137

THE COMPLETE CONTENTS

(CONTINUED)

	PAGE
How to Make a Wetzel Knife Scabbard	139
The Call of the Out-of-Doors	142
With the Aid of Some Matches	143
In the Scout Cave	151
Old Doc Peterson's Divining Rod	156
Four-Footed Folk	162
The Poor Little Rich Boy	167
Destroying Destructive Wild Animals	175
Pioneering and Woodcraft	176
Scout Marching Song	179
Pops of Popular Science	180
The Mysterious Stranger	185
The White Arab	193
On Being Lost	201
Let's Go for a Hike	203
Woodsy Cookery	204
Trout Fishing for Boys	206
The Real Robinson Crusoe	208
Think and Grin	215
Quantrell of the Santa Fé Trail	223
Scout Trails of Yesterday and To-day	228
Buffalo Bill and the Buffalo Bull	229
Worthless Wallace	233
Hiawatha's Mittens	245
For the Wireless Amateur	246
The Mysterious Trail	249
A Side Car for a Bicycle	251
What's a Boy Scout?	252

LIST OF ILLUSTRATIONS

FULL PAGE ILLUSTRATIONS

	PAGE
ANSWERING THE CHALLENGE	*Frontispiece*
THE SPELL OF THE FIRE	23
THE THRILL OF HIGH ADVENTURE	24
THE BOY LINCOLN	45
ANIMAL ENGINEERS	46
THE BOY SCOUT	65
ROUNDING UP THE MAN-EATER	66
WHEN WE GO SWIMMIN'	99
UNDER THE SOUTHERN CROSS	100
A BALLAD OF THANKSGIVING	123
THE GREAT BROWN BEARS OF ALASKA	124
THE CHARMS OF WINTER	133
PEARY AT THE NORTH POLE	134
THE VIGIL	191
THE WHITE ARAB	192
THE RIVER	221
QUANTRELL OF THE SANTA FÉ TRAIL	222

LIST OF ILLUSTRATIONS IN TEXT

	PAGE
Something brushed across his face	33
Dick, keyed up and restless, moved back and forth	41
Pioneer racks	51
How to boost a heavy object	53
A whoppin' big codfish made a grab for it	54
I have a plan to stretch out our stock of eatables	57
His wife, petrified with horror	66
A Boy Scout Hogan	72
Down the Salwin	81
The tube was nearly jerked from Horace's mouth	87
The keel of the launch grounded	100
"'Boots,' gasped Jerry"	114
The man in tattered white stumbled up the steps	121
Bows and arrows	131
Wetzel knife scabbard	139
He forgot his woes	144
Startled, Sport dropped his glass	146
The black groaned	149
The Scout Cave	151
I ain't no Rocky Mountain goat	156
The doctor marched along	158
Awfully glad you could come	173
Friction racks	176
Bridge building	178
He carried ashore a rooster	210
The supplies put ashore were liberal	211
"The same old stuff"	215
A slender, black-eyed, black-haired man in buckskins	222
"He dond drount"	235
A grumpy old black bear sat hunched on a log	236
Wallace had submarined him	237
Among the trees he discovered the form of a man	239
Side car for a bicycle	251
In camp	252
The daily good turn	254
Respect for country	255



FOREWORD

The growing boy and girl are the chief assets of our country. Our natural resources in mineral lands, forests and streams, sources of food, and our large business opportunities, important as they are, must be considered as of secondary importance as compared with the proper development of the citizenship of to-morrow.

The environment in which the boy and girl live, their educational opportunities and their manner of using their leisure time, will largely govern their development. Of the 5,000 hours a year that the boy is awake, the school room has but 1,000, and he is without a definite program for a good portion of the remaining 4,000 hours. The Boy Scout Movement serves to supply a definite program for this leisure time of the boy.

Through careful study, it has been discovered that the average boy spends a great deal of his leisure time in reading. For this reason those responsible for promoting the Boy Scout Movement have definitely interested themselves in supplying an attractive and at the same time wholesome reading program for him. The official *Handbook for Boys* has now reached a distribution of over 200,000 copies a year; *Boy's Life,* the official monthly magazine of the movement, has reached a circulation of over 100,000 and is growing steadily; and in the last few years, there has been made available, with the aid of a strong Library Commission, a special edition of books for boys, known as *Every Boy's Library.* Further, the Boy Scout Movement undertakes to list books which are worth while, and is prepared to give advice, when requested, as to books which are not worth while.

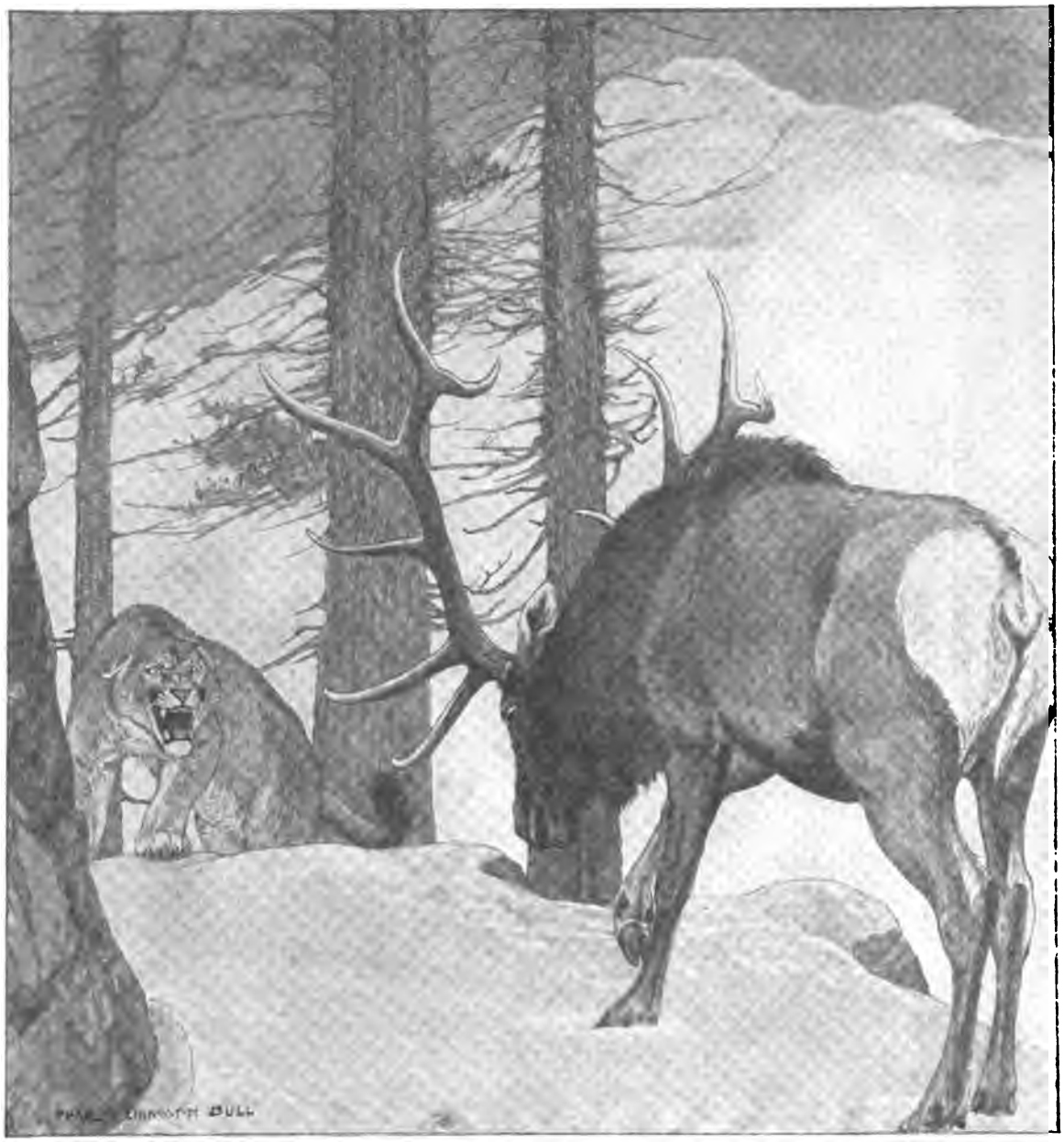
Foreword

Opportunity has been presented for the Boy Scout Movement to go a step further in its desire to help in providing beneficial reading matter, by coöperating in the publication of a Boy Scouts' Year Book. The first of the series of annual publications of this character was published in 1915. This, the sixth volume, like the former volumes, contains stories, articles and illustrations which are taken largely from *Boys' Life*. Their publication in these volumes will help to preserve in a more enduring form much of the splendid material which eminent men (public officials, educational leaders, naturalists, explorers, handcraft experts, scout leaders, fiction writers, humorists and artists) are providing for current publication in the scouts' official magazine.

To all of these men the thanks of the Boy Scouts of America are extended—and particularly to Mr. Daniel Carter Beard, who serves as associate editor of *Boys' Life*, finding as always the greatest compensation to be that satisfaction which comes from knowledge of greater joys and benefits brought into the lives of boys.

JAMES E. WEST,
Chief Scout Executive.





The young bull, surprised too, stood irresolute. An old fear welled up in him and made him want to flee in uncontrollable panic, but this was quickly overcome by the desire to fight that was rampant now, and, adding fuel to this, was the memory awakened in him by the sinister form and unpleasant odor of the great yellow cat. There was a vague feeling that he had a score to settle. But the dominating emotion was that this tawny menace stood between him and the herd, between him and the great bull that he meant to conquer, between him and the leadership of the band in the valley beyond the ridge. He snorted loudly and began to paw the ground, brandishing his well-armed head in a challenge.

Answering the Challenge

By Irving Crump

Illustrated by Charles Livingston Bull

THE little bull calf huddled in a heap among the dried leaves and the withered grasses in the timber on the edge of the clearing as motionless as a stone. His mother had left him there and there he intended to remain until she returned to him. Instinctively he knew that Nature had given him coloring that blended witn his surroundings and made him almost invisible. So long as he remained motionless he knew that danger could lurk close at hand and yet pass him by, for calf elks give off little odor by which the sharp-nosed prowlers of the forest can detect them.

Off in the clearing his mother browsed in the company of other cows. Through the tangle of grass stalks he could see her dimly. Now and again she raised her head nervously and sniffed the soft spring air, while her big eyes searched the depth of the budding forest on either side of the glade-like meadow.

Suddenly, just as she put her head down to resume her meal, came a sudden soft, almost soundless rush of padded feet, a rustle of dried grass, and, like the wind, a tawny yellow body swept by the spot where the calf lay hidden, and, with a lightning-like, leaping bound, a huge panther crashed down upon the startled cow elk.

For twenty minutes the great cat had crouched at the edge of the forest watching the little band of grazing cows and waiting for them to move within striking distance. They had moved but little as they fed, however, and, finally, the hungry panther, unable to restrain herself, made a swift, silent dash for her quarry.

The distance was great, but she almost succeeded. Just as she launched herself on the last long bound that would bring her down upon the nearest cow's back, the mother elk took alarm, and, with a startled snort, half bounded, half twisted herself out of the path of this yellow peril. Great claws raked her rump and hind legs as the panther tried to climb upon her back. For an instant the cow staggered under the impact and extra weight, then with a frightened toss of her head and a frantic effort she bounded again and again, and, shaking off the great cat, fled in terror into the forest. For a few leaps the panther followed, ears back and lips drawn in a snarl. Then she stopped and crouched low, her long tail lashing angrily and her sinister yellow eyes glaring off into the forest where the small band of elk had disappeared. Cheated of her kill she swept the glade with a wicked look and then slunk off into the forest.

Through the terrible spectacle enacted before his eyes the little bull calf crouched, never stirring a muscle, although fear almost made his heart stand still. It was his first experience with the tawny yellow killer, the peril of the forest. The hideous cat odor lingered in his sensitive nostrils for hours; inwardly he quaked with the fear that it bred. He wanted to get up and run; run from the scene, on and on into the forest. Yet, so strong was that instinct to lie motionless for protection, that hour after hour slipped by, nor did he so much as raise his head.

As the afternoon wore on and evening approached, the terrible fear began to be

dominated by intense hunger. Not since morning had he nursed and his small being cried out for food. Yet, despite these hunger pangs, he still lay motionless, while the shadows of the forest lengthened across the glade, and the sun slowly dropped behind the snow-capped mountain peaks across the valley until the violet half-light of evening invaded the meadow. Already the aisles of the woods were velvety black; from afar came the call of the great owl, a fox barked from a ridge beyond, and the hollow call of a raccoon floated down the night.

The little bull calf heard them all, as he had heard them before. Under the cover of darkness, he dared raise his head a little and gaze about. He was almost tempted to add his weak quivering voice to the night sounds. Suddenly a noise sounded near at hand. It was but the snapping of a twig, yet because of some sixth sense the calf elk was not startled by it. Indeed, he welcomed it by staggering uncertainly to his feet and trotting toward the sound on wobbly legs. Out of the darkness loomed the shape of his mother. All afternoon she had been traveling in a wide circle in the forest to come back to him at nightfall.

Eagerly the calf nosed at her, too hungry to note that she was scarcely as steady on her legs as he was. Those great claws had bitten deep. They had raked spine and flanks so terribly that great cuts hung open, and the elk was weak from loss of blood and the mangling she had received.

All night long she hardly moved from the clearing's edge and with sun up the little bull calf sensed something strange about her. She persisted in lying down. There was a blood odor about her, too, and the calf trembled as he saw the scarred flanks. The cat odor lingered, too, and back in his mind the calf associated his mother's condition with that yellow menace of the forest.

Still he nosed at her. He tried to persuade her to get up, to move. But, as the morning wore on she grew weaker and presently the calf understood that something strange had happened. He nosed at her more persistently now, and called pitifully. Then he would stand off and look at her inquiringly, sometimes stamping his tiny foot impatiently, sometimes going back and apparently imploring her to move.

At length as he stood looking at her, came the sound of something moving in the forest close at hand. The man scent came down the wind, and like a flash the calf whirled about and faced in the direction whence it came. Out of the woods came a man in gray-green uniform.

For a moment the calf stood looking at him, half fearful, half angry. The man stopped, too, and over his face spread a smile as he saw the elk baby stamp his tiny foot and shake his head menacingly, just as if he were armed with the fine spread of antlers that would some day be his.

"Hello there, young one. A fighter, are you?" said the man.

At the sound the calf bolted and scurried around behind the lifeless form of his mother for protection.

The man's face became serious when he saw the mangled cow elk.

"Shucks, that's rotten. Fine big cow gone. It's that doggone panther." He bent over the elk and examined her. And as he stood thus the calf came closer and closer until finally he nosed the man's leg, as if imploring him to do something that would bring the dead cow back to life.

"Sho, it's a plum shame; that it is," said the man looking down at the calf. "You're an orphan, young one. Tough. And I guess you'll be food for that same panther if I don't look after you. How'd you like to come along with me?"

He reached over and stroked the calf gently for a few moments, then picked it up in his arms.

"Say, you're a husky one for a kid. You weigh something. But I guess I can tote you," and presently he moved off into the forest with the calf elk huddled in his arms.

It was lonesome for Ranger Tom McNulty in his cabin in the gulch that split the side of Panther Mountain, and he welcomed the company of the calf elk.

This four-legged orphan promised to occupy some of the duller moments of his existence. By the time Tom got his arm-breaking burden home he realized that the husky infant was decidedly hungry. It had already sucked the skin from his ear, nursed at nearly all of his ten fingers, mouthed at his trouser legs and coat ends, and created a general clamor in its effort to impress upon him that it was long past breakfast time.

He tried a variety of things, among them a handkerchief dipped in oatmeal water, at which the elk nursed greedily until he threatened to swallow the handkerchief. Then he tried feeding him from a spoon with condensed milk diluted with warm water. This was measurably successful, but it was difficult to persuade the calf to give up the spoon once he had wrapped his tongue about it. In the end Tom had to ride thirty miles to the nearest ranch, borrow several nursing bottles, and arrange for a supply of milk for which he went three times a week.

This strange diet retarded the calf elk's development and it was well along in the summer before he began to show signs of growth. Meanwhile, he and Tom became fast friends. Indeed, he would scarcely let the forest ranger out of his sight, trailing after him like a dog whenever Tom failed to shut him up in the log stable.

August came and strange sounds echoed through the mountains—sounds that seemed to stir the calf strangely. He heard the clear bugle-like notes ringing out across the valleys and echoing against the mountains, and he would raise his head and sniff the air, and stamp his foot challengingly. Instinctively he knew that these were the calls of the bull elks of the mountains.

Autumn advanced and a restlessness came into his blood. He seemed to understand that this was the time when the great bands of elk in the valleys were moving on to winter feeding grounds. But he stayed close to Tom and the cabin. His coat grew thicker and heavier and he was not surprised one evening to find the air filled with powdery flakes, the first snowstorm of the year, and from that time he was a busy individual trying to find food for himself.

Spring came, and with it the young elk became a prouder being, for on the top of his head sprouted two velvet-covered knobs that grew amazingly fast and ere long took the form of two spikes. Tom's orphan was now a spiked buck and proud of it. Indeed, he had many a joust with trees and second growth saplings about the ranger's cabin, killing many of them in an effort to rub off the itching velvet and polish his horny head gear. He shook them at Tom occasionally, too, and stamped and snorted in mock anger, but the ranger laughed at him, and threw a water-pail clattering after him, "Just to take him down a bit," as the ranger explained to his horse. The elk, startled, would flee from the clattering thing until it stopped rolling, then he would stamp and charge it, only to set it clattering again and frighten himself into another stampede.

Still the young buck lingered about the cabin, and followed Tom through the timber. But he wandered farther afield than before, sometimes going well down the gulch. Always, however, he came back to the cabin at night, bedding down near the log stable where he had bedded ever since he had been at the ranger's house. Twice during the summer he crossed the trail of

the great panther, and both times the cat odor stirred in him both fear and anger, and vaguely he recalled the terrible hours he had spent waiting for his mother that day a year back.

Another winter he spent in the vicinity of Tom's cabin. His spikes dropped off, much to his surprise, early in the year, and, with the coming of spring, a second set began to grow, much faster than the first; by warm weather he possessed a beautiful pair of velvet-covered, five-spiked antlers. He was very proud of these, and polished them carefully against young trees.

He was now a handsome beast, well grown and beautiful to look upon, and Tom admired him more than once as he watched him wandering about the clearing in the vicinity of the cabin.

"You've grown pretty big to be a pet, young fellow," said Tom, "and I'm afraid you'll be getting a dangerous customer to monkey with, come August."

Tom was right. The young buck challenged everything and everybody to fight with him, and he snorted and stamped and shook his antlers at Tom more than once. But Tom always resorted to the rattling tin water-pail.

August came and with it the wonderful bugling of the bull elks across the mountains. Tom's elk began to bugle, too, not in the fine round mellow tones of the big six-point bulls, but in a higher, shriller tone. He became more truculent, too, challenging Tom, his horse, trees and bushes and everything else to a clash of antlers. But more and more he challenged Tom, until one day, angry himself, Tom threw the tin water-pail at short range and it landed with a clatter and a bang against his horns and caught there. With a snort the elk leaped backward and shook his head, and the more he shook the louder became the clattering and banging about his ears. Finally in amazed fright he bolted off through the forest, the pail rattling and clanking and banging frightfully, while Tom stood in front of his cabin and laughed till his sides ached.

"He's gone off with a perfectly good water-pail and I'll bet he never comes back," said Tom.

He was right. The young bull ran on and on, clattering through the woods, and frightening every forest dweller for miles around. He ran until he was exhausted, and had to stop. Then, to his astonishment, the terrible clatter and bang stopped, too, and when he lowered his head, he was surprised to find that the pail unhooked itself and lay motionless and soundless on the ground. The young bull looked at it in surprise, then gave it a vicious stab with his antlers, and, as it went rolling with a clatter and a din down the mountainside, he rushed off in the opposite direction. Yet the experience with the pail did not subdue him for any considerable length of time.

Afternoon wore on and the sun began to drop lower, but he crashed on through the forest with the desire for contest unabated. Presently he paused and listened. From far, far off, ringing from the mountains beyond the divide, in the other valley, came faintly to his ears the rich, rolling bugle of an old herd bull challenging the world. The young bull heard and knew that beyond that ridge this lord of the herd was leading a bunch of cows into one of the mountain parks. The full-throated challenge was what he had longed to hear. It meant a clash, a fight, a contest for the leadership of the herd. He threw up his head and broke forth in an answering bugle. He started upward, climbing to the top of the ridge in order to descend into the further valley.

Higher and higher he went, and presently he gained the timber line and traveled onward toward the crest of the ridge. Up here he found the first snow of the season. Cliffs were carpeted with it, and

the mountain tops loomed high and silent, white and cold.

On he plunged, threading one ledge after another and climbing toward the ridge. He was skirting the base of sheer rocky cliffs and picking perilous footholds in his effort to top the divide.

He did not know that, as he climbed, another animal was climbing, too, and heading for the same destination. The tawny killer of the mountains, the giant panther, knowing as well as the young bull that there was a herd of elk in the park-like valley beyond the divide, was crossing over, too. From rock to rock she slipped, traveling swiftly but stealthily. She was hungry, terribly hungry, else she would not be journeying that far for her kill.

On plunged the young bull, skirting cliffs and picking ledges that afforded firm foothold. Presently he rounded a huge bowlder and came out upon a narrow ledge that led straight toward the top of the divide. But he had hardly taken three steps when he came to an abrupt stop. A puff of wind carried an odor that brought back to him recollections of a sinister tawny form, and the lacerated remains of his mother. He sniffed the air with a snort, and at the same moment, gliding over the edge of the cliff from a point of rocks below, came the tawny form of the killer. For a moment the panther, surprised, drew back and dropped her body to the ground. Her cruel yellow eyes narrowed, her ears flattened against her head, her whiskers stood out and her lips curled, baring long, savage, yellow teeth.

The young bull, surprised too, stood irresolute. An old fear welled up in him and made him want to flee in uncontrollable panic. But this was quickly dominated by the desire to fight that was rampant now. And adding fuel to this was the memory that the sinister form and unpleasant odor of the great yellow cat awakened within him. There was a vague feeling that he had a score to be settled. But the dominating emotion was that this tawny menace stood between him and the herd beyond, between him and the great bull that he meant to conquer, between him and the leadership of the band in the valley beyond the ridge.

He snorted loudly, and began to paw the ground, brandishing his well-armed head in a challenge.

The great cat eyed him. For a moment she seemed to debate the situation. Past experience told her that elk were cowardly things. She had never encountered a young bull face to face in rutting season before.

Slowly she began to creep forward, making an ugly sound in her throat as she came on. Step by step, crouching, she advanced, watching for a chance to spring. The young bull pawed and shook his head again, then dropped it low as if to charge. The great cat saw her chance to fling herself clear of this bristling hedge of polished horns and land full upon the elk's unprotected back. Like lightning she leaped.

But the young elk was not taken off guard. The instant the tawny form shot through the air up came his head with its armament of deadly spikes. It met the tawny form midway in the spring and she crashed down full upon this deadly hedge.

The bull went to his knees with the weight of the body impaled upon his antlers, but he staggered up with a snort and, while the great cat clawed at his flanks and back in an effort to drag herself off the horns, he shook his head and shoulders heavily and pitched her away from him. She dropped into the snow with a snarl and backed away, prepared to spring. Crimson spots on the white snow testified that the young bull had drawn first blood in the battle.

The elk's fighting blood was surging through his veins now, and he charged the

panther. With a gurgling hiss she leaped aside and tried to get behind his guard of horns. A short leap she made, but with a deft swing of his head those polished, knife-like spikes raked deep into her flanks and threw her back into the snow again.

Scarcely giving her time to regain her balance, he rushed her once more and ripped her rump as she sought to dodge out of his way. She, not he, was on the defensive now. Again he charged, and, as she slipped out of his path, he spun around and whipped his spikes across her ribs, opening up gashes deep and ugly. She slapped at him in a frenzy with wicked paws, and once she raked his face and nose with her sharp nails. But the pain and the blood only seemed to make him more furious. He snorted his rage and leaped at her again, seeking to pin her down with his horns or to catch her and toss her upward off the shelf.

But, quick as he was, she was elusive, too, and not once could he seem to get a fair and telling home thrust. Each time he charged she slipped by and the best he could do was to slash her as she spun around. Once she almost got behind his guard of horns and fastened her claws into his back. She made a quick leap sidewise and one of her deadly claws fastened into his shoulder. But those terrible horns slashed round and hooked into her flanks before she could draw herself up on to his back, and her claws were torn from their hold as he threw her aside.

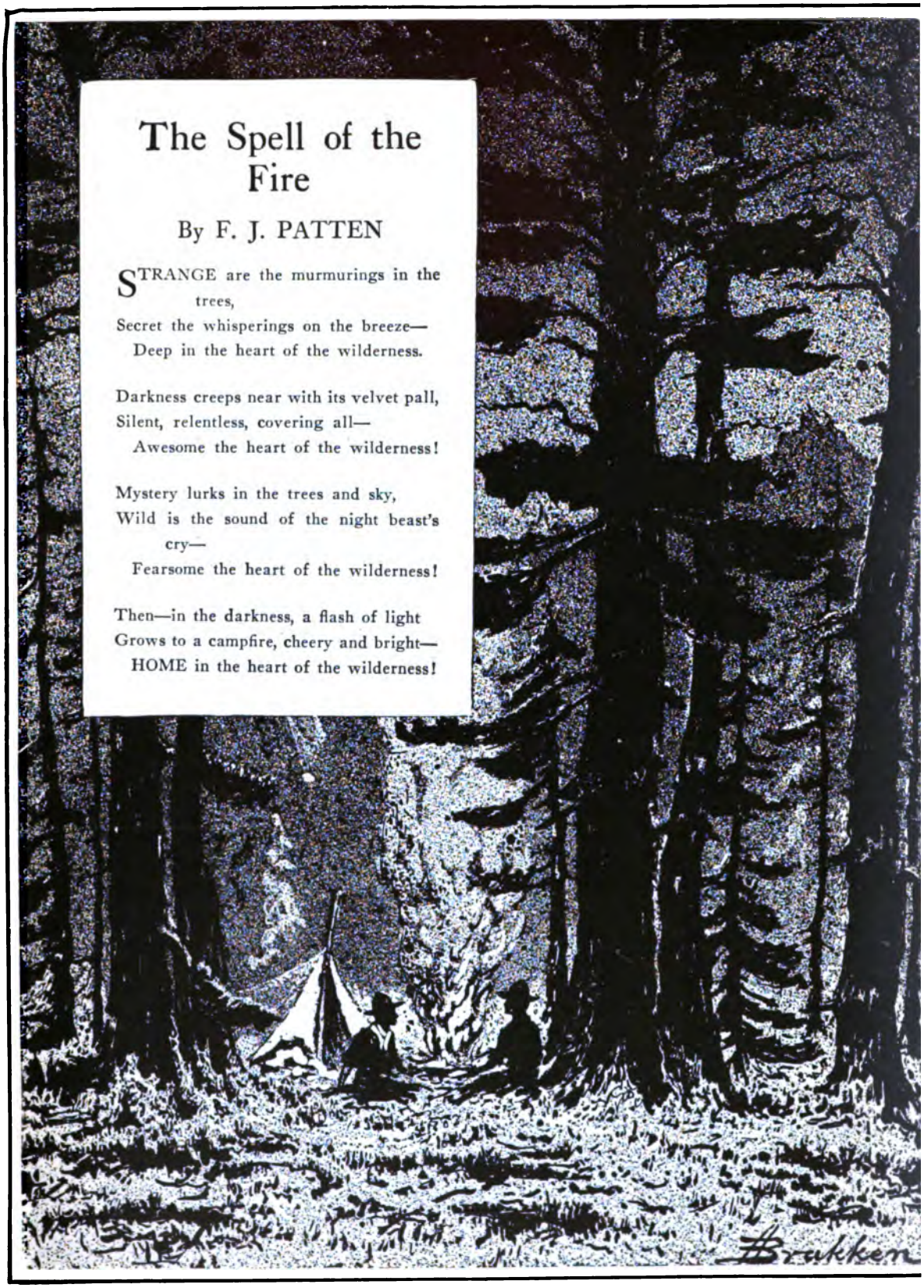
Fighting with such fury, the young bull presently grew tired. For a moment he drew off and rested, while the great cat crept backward and prepared to spring. Each stood tense and silent watching the other. The elk's breath was coming in heavy snorts, while the panther bled from a score of ugly wounds.

Suddenly, without warning, she rushed and leaped, trying once again to clear the hedge of horns. But the young bull was ready. Up went his head again, and again she landed on those deadly spikes. The bull staggered with the impact of the rush and the extra weight of the cat. He lurched sideways and turned partly toward the wall of rock beside him. This was an unexpected move, and on the instant the cat saw her peril. In another moment she would be caught with her back against the rocky wall, and he could grind her to ribbons. Frantically she tried to get down, but the young bull, sensing his advantage, threw her hard against the rocks and jammed his horns home. Then, backing away, he dropped her to the ground.

A snarling, writhing, bloody mass of yellow fur was the panther now, for those spikes had pierced her body in a dozen places. She tried to drag herself away from the wall of rocks, but the young bull, frantic now, crashed down upon her and drove his horns home again. The panther gave vent to a choking, gurgling scream of rage and fear. Again the bull charged, then again and again, each time grinding the mutilated body against the rocks and stamping it into the snow with his sharp forefeet until nothing remained but a bloody, convulsively struggling mass.

For a moment the young bull looked at the result of his rage with flashing eyes and heaving flanks. Still the lust for battle stirred within him. He stamped and snorted and shook his head at all that was left of the panther as if he half hoped that the thing would fight once more.

Then from far off, over the ridge, came, a little louder now, the deep-throated bugle of the old herd bull. The young bull paused and stood like a statue for a moment, listening, his big ears cocked forward attentively. Again the bugle sounded. Up went the young bull's head in an answering call, and, turning, he started for the top of the divide, to fight for supremacy with the herd bull in the valley.



The Spell of the Fire

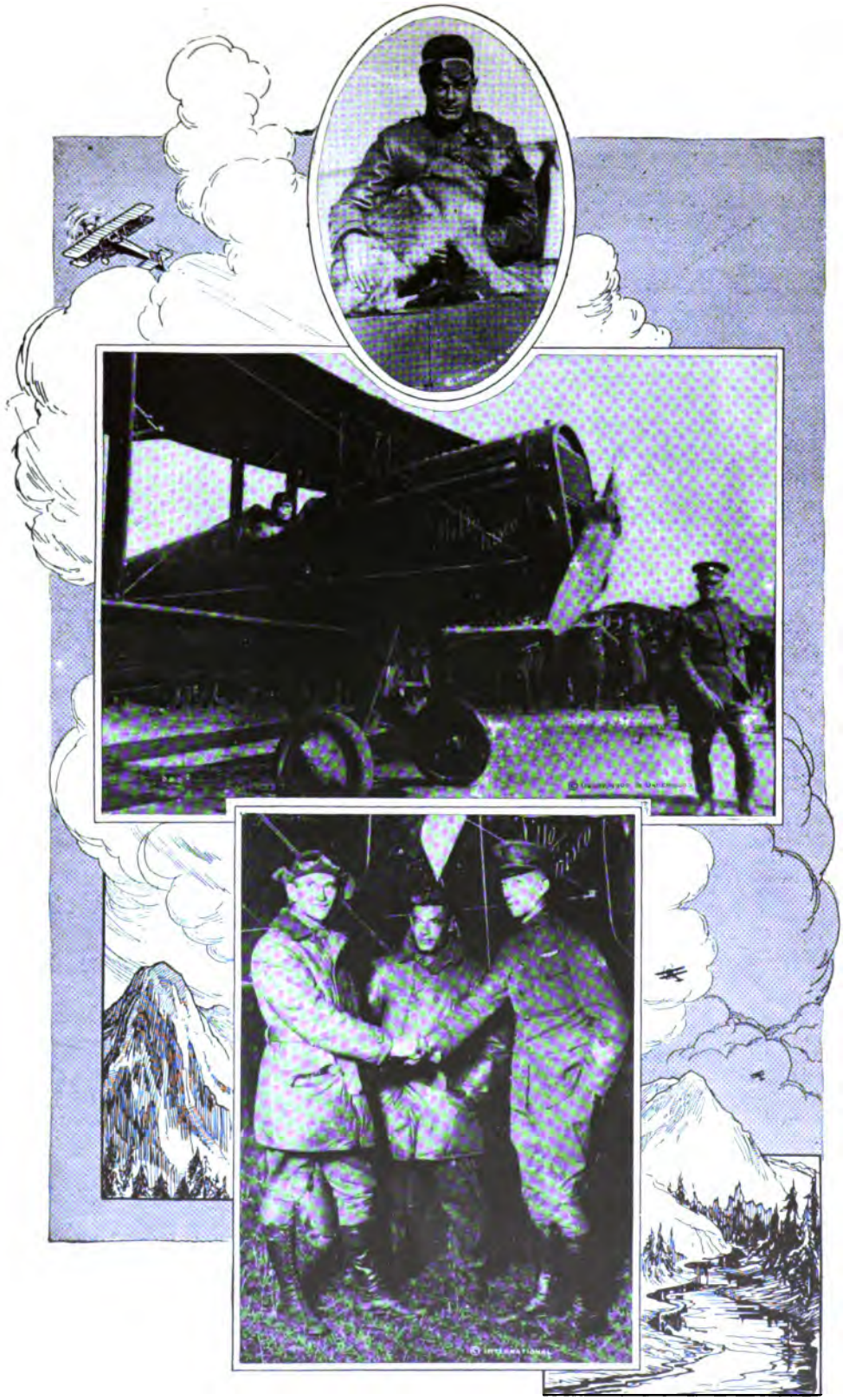
By F. J. PATTEN

STRANGE are the murmurings in the trees,
Secret the whisperings on the breeze—
Deep in the heart of the wilderness.

Darkness creeps near with its velvet pall,
Silent, relentless, covering all—
Awesome the heart of the wilderness!

Mystery lurks in the trees and sky,
Wild is the sound of the night beast's cry—
Fearsome the heart of the wilderness!

Then—in the darkness, a flash of light
Grows to a campfire, cheery and bright—
HOME in the heart of the wilderness!



Top— W. E. Kline, with their Mascot, "Trixie." Below—Lieutenant Maynard about to leave San Francisco on his return flight. Bottom—A snapshot taken when the Sky Pilot was forced to land because of a broken crankshaft

The Thrill of High Adventure

By Lieut. Belvin W. Maynard

The "Sky Pilot"

FELLOW SCOUTS, shake hands with Lieutenant Belvin W. Maynard, our country's greatest aviator in time of peace; the man who was speed winner in the New York-Toronto International race, and first home of the transcontinental flyers. In twenty-five hours he traveled the distance between Mineola, Long Island, New York, and San Francisco and returned in the same length of time, speeding on the last lap at the rate of one hundred and twenty-five miles an hour.

When you see an aviator way up in the air, you have asked yourself many times, "What is that fellow thinking about?" And you have wondered, too, how the earth looks from way up there. Doubtless you have said and thought that a good many times. In the article by "Sky Pilot" Maynard that follows, he tells you something of what he was thinking of, how he was feeling, and of what he was proudest.

Not about the glory of it, that he should be the first home on that wonderful flight across the continent and back again; not the cheering thousands or of his fame resounding around the world. Not of this did he think so much as of his country, and his pride in it; of his home and family, and of his loyalty to them. Could we find a better man than he to tell you what he thinks of the scout law of loyalty and what he thinks of you scouts?

The Editor.

After leaving New York on October 8, 1919, with San Francisco as my goal, it was my happy privilege to fly all the way across the vast tract of land which forms what we know as the United States of America.

What a wonderful and beautiful country! Flying over the city of New York with its world-famous tall buildings projecting hundreds of feet toward the sky, and looking like Christmas toys beneath me; flying over the hills, wooded forests, and lakes of New York State; flying over Lake Erie from Buffalo to Cleveland; across the fertile lands, prosperous farm homes and thriving cities of northern Ohio and Indiana, I finally came to the great city of Chicago, which hid her own beauty beneath the smoke which teemed from thousands of smokestacks of thriving industries.

From Chicago I passed over more fertile country between the Mississippi and the Missouri and on both sides of them, soon reaching Cheyenne, planted at the foothills of the Rocky Mountains. Spanning the Rocky Mountains which stood thousands of feet in the air with their rugged slopes, snow-capped peaks, and barren valleys; over the Great Salt Lake and many mineral deposits forming all kinds of lakes; finally across the treacherous Sierra Nevada range, long since famous for its beauty and for being the home of the Forty-Niners, I came to the proud city of San Francisco.

"All this," said I, "goes to make up this marvelously great country of ours." Its happy homes where, beneath the sunshine and smile of parental care, all our great

men have received the inspiration and vision of greater things; its farms giving to our country and to the needy of other countries the necessary food and clothing; its towns and cities the home of America's industries and trade; its rivers and beautiful lakes breaking the monotony of almost unending terrain; its wooded hills and mountains with unsurpassed beauty and splendor, giving to America the envied right to claim for herself the world's most beautiful mountains; its peoples engaging in diversified industries and occupations furnish to our country, when taken collectively, the possibility of its prosperity and happiness.

How my chest swelled and how my pride welled within me at the thought of being a citizen of such a country! No wonder I am stirred with anger when I think of the Bolsheviki laying waste one single foot of this land of which I am so proud. Yet in all this vast territory from New York to San Francisco there is not one single foot of soil that belongs to me. Not a horse, nor a cow, nor a sheep, nor a foot of America's soil can I claim as my own.

Why, then, should I love it? Do I love it for its productiveness, its richness, or its grandeur? Do I love it because it has a great government and noble President? Listen. I'll tell you the secret. After my transcontinental flight, when I landed on Long Island on October 18, 1919, there were three there to greet me, a wife with a tearful kiss of joy and two of the dearest little girls God ever made, who clamored for the first kiss and daddy's first embrace. For these I would do everything. But this isn't all.

A few days later I flew in my plane to North Carolina and there I was met by my father, a devout man of God whose influence has always called men away from things common and low to the higher and holier, and whose love for his country inspired him gladly to send three sons to France to give, if necessary, their lives for their country. By his side was my mother; though the mother of eleven of America's loyal sons and daughters, she is still brave and strong and prayerful. She, like the mother of every man with a hope in life, is a devout Christian with a stalwart faith, unshakable and unwavering in the God that directs the destinies of every individual and every nation, and it was upon her knee and under her care that these eleven children have been nurtured.

Now ask me why I love America! Such homes as mine are to be found the whole country over and they are what make it a great country. Every Boy Scout has these loved ones that he prizes above all others. For these we would gladly give our lives, for all Boy Scouts are brave and unselfish. Being unselfish we are not only interested in the happiness of our loved ones but we are determined to see that every other family is just as happy as our own.

To protect the homes, the lives, and the happiness of every family, and to add to the prosperity and happiness of each other, we organize into a community government where all the families are represented in passing laws for the good of all and which are enforced for the common good. In turn, our communities are united into a county government, the county into a state government, and a state government into a national government.

So you see that loyalty is a very natural thing. When we think of thousands of scouts all over the country whose happiness is just as important as our own and who are looking to you to help them preserve this happiness, we cannot and we will not go back on them. All of us have pinned our faith in a republican form of government with representatives to represent us in the making of the laws and an executive department to enforce them. It has its faults, of course, but so has everything else that man has created, and every

idea that man has conceived. It does not matter how smart and intelligent we think we may be, there are others just as brilliant.

It is your duty as a true and loyal scout to be ever at the service of your country, always doing everything you possibly can, without being asked, to strengthen the hand of the government. You should not allow shallow-brained, weak-minded, thoughtless, unpatriotic people to say ugly things about our government and our country without expressing your contempt.

Let us not be so unthoughtful ourselves as to say mean things about our country, but let us realize that our country is not some inconceivable idea, some visionary object, or some incomprehensible state of existence, but a simple and plain reality, easy to conceive and made up of such homes as you represent; and that to bring disgrace upon our country is to bring disgrace upon these homes so dear to all of us. No scout can be loyal to his family without being loyal to his country, and, in turn, loyalty to country is loyalty to home.

How can we express our love for our country in time of peace? In time of war it was very easy to distinguish between the loyal and the disloyal. The loyalty of the man in the trenches was never questioned, and yet there were a few disloyal fighting for us even in the trenches. It is sometimes hard to determine by a man's action or by his ideas whether or not he is loyal, especially in time of peace.

At the moment there are some in this great and magnificent country of ours who are masquerading as loyal citizens but who by their very talk and actions deny this fact. And because they are wearing this mask and cloak of sham loyalty they are dangerous. They are seeking to tear down with their teachings of anarchy and their acts of violence that which we have learned to be proud of, that which our forefathers, our fathers and our brothers, each in their generation, have fought and struggled, and sacrificed life to build up and make permanent. It is for us then, for you Boy Scouts of America, by your acts of loyalty to prove yourselves the antidote to counteract this evil influence by your loyalty. Spread the great good of your organization throughout this land and by your acts of loyalty prove yourselves the antidote for Bolshevism and anarchy.

We can only rightly judge a man by the spirit and love which direct his action. If he loves America and his ideas are thoroughly opposed to yours he may still be honest. If he is honest he should be respected. If he is dishonest he should be jailed. Let us be honest in what we do and let us be directed by our conscience and not by anything else. With love for our country and a willingness to be directed by our consciences we can, even in peace, be of great assistance to our government. If our hearts are right we need not seek the opportunities; they are ever with us. We have only to grasp them.

Watch the Boy Scouts! Theirs is loyalty personified!

Making Model Aëroplanes

By F. A. Collins

IN no branch of aëronautics is there more enthusiasm to-day than in model aëroplane building and flying. The amazing development of aëronautics during the war has advanced the science as nothing else could. In five years of war the conquest of the air has been equal to that of fifty years of ordinary growth in peace times. We have seen the Atlantic ocean flown by three types of aircraft. The day of commercial passenger and express traffic is already here. We will wake up some morning to see the sky full of air fleets flying between countless air ports all over the world. The model aëroplane which has been developed entirely by the ingenuity and skill of boys is one of the most fascinating of all aircraft. It is so cheap to build and besides it enables every boy to take part in the growth of the marvelous new science.

Throughout the war the building and flying of model aëroplanes was naturally checked. We were all too busy watching the accomplishments of the great fighting machines. Now that peace is here, however, boys in several countries are taking up the old sport in earnest. The model clubs are being reorganized, new groups are being formed. A new generation of boys is taking up the work. The boy who begins model building to-day enjoys a great advantage over those who entered the game ten years ago. In the early days of model building there was much to learn about flying both large and small craft and many experiments must be made before a successful model could be built. To-day, this experimental stage is past. Model aëroplane building has been standardized. The best dimensions for all the parts of a model aëroplane have been determined by years of tests carried out by many thousands of bright boys on both sides of the Atlantic. The question of suitable materials again has been decided. It is possible to purchase the parts of a model aëroplane very cheaply so that a boy if he chooses can buy a model almost ready made.

The Glider

Anyone who intends to build and fly model aëroplanes should begin his experiments with a simple glider. It is a very easy matter to get flights of over 200 feet with a little craft which can be constructed in a few minutes or bought for a few cents. These tests give the beginner the best kind of practice in balancing the little craft and adjusting the planes. They lead to success when he takes up a power-driven model. Your glider can be made to fly high or low at surprising speed and even loop the loop.

A glider, it is scarcely necessary to explain, is a light little air craft of the same form as a model aëroplane but without motive power. It is usually thrown into the air and the length of the flight depends largely upon the skill used in handling it. A simple method of securing long flights is to have the glider launched with considerable force by means of a rubber band.

Two sticks are driven firmly into the ground about two feet apart, leaving the tops on the same level three feet from the ground. One or more strands of rubber are then fastened at either end to the tops of the sticks. The model is thrown just as a stone is shot from a sling shot. A small projection or hook is placed at the forward end of the glider which is hooked on the rubber strands. The glider is then pulled back two or three feet, as far as the rubber will stretch, and, after being carefully aimed, is released. With a little practice a long and graceful flight is assured.

In a glider or a power-driven model the behavior of the little craft depends largely upon the position of the planes or wings. The planes are fastened to the stick by means of rubber bands and can be readily moved back and forth until properly adjusted. It will be found that by curving them slightly upward the length of the flights may be increased. By making the wings slightly convex the glider can be given a graceful upward motion and this may be increased until it will loop the loop. It is a fascinating field of experiment and one who has gained this experience will be sure of success in building and flying the regular models.

These little gliders may be purchased in most toy shops for ten cents or delivered by mail. For those who prefer to build them for themselves a few simple directions will suffice. The central stick should measure one-half by one-eighth of an inch and twelve inches in length. The larger plane should be made of white wood about one sixteenth of an inch thick and two and one-half inches by twelve inches. The smaller plane, carried forward, measures two and one-half by five and one-half inches. The edges of both planes should be rounded. A small vertical rudder two and one-half by three inches is mortised into the center of the stick. A small block of wood or a hook is fastened at the forward end of the stick on its upper side to hook over the rubber band.

The Propeller

It is quite a trick to make a good model aëroplane propeller, but it is the kind of work in which any boy will be interested. The easiest way to get your propellers is to buy them. Any supply house will sell them just the size you want ready to fit on your model. Another plan is to buy the propeller blanks ready cut and whittle them out for yourself. This is a good plan if you cannot get the right kind of wood, for the blades are cheap. Let us suppose, however, that you intend to do all the work yourself.

The best wood for the propeller is spruce, but if you cannot get this, some hard straight-grained wood will answer. Select a piece free from flaws. First cut your propeller block. For a ten-inch propeller you will need a piece ten inches in length, three-fourths of an inch broad and half an inch thick. The pitch of the propeller, which controls its speed or pushing power through the air, may be increased by using a thicker block.

First, draw diagonal lines from the opposite corners to find the exact center of the block, and drill a small hole through to the other side. It is very important that the hole should be exactly straight or perpendicular to the face. This will later serve as a shaft on which the propeller will spin. Then cut away one edge with a sharp knife until the face is roughed out. Next cut the opposite edge until the blade which is beginning to take shape is, say, three-eighths of an inch thick. The opposite end of the block should be treated in the same way. It is important that the two blades be of the same form and weight so that the propeller will be exactly balanced.

The blades are very thin, and the hub

must be cut away. In your first propellers it will be better to leave a strong hub around the shaft. A slip of the knife may spoil the entire propeller. The final work of reducing the blades may be done with rough sandpaper. The blades should not be less than one-eighth of an inch in thickness. Be careful in rounding off the outer ends of the blades to keep the whole symmetrical. When the propeller has been sandpapered it should be painted with a thin coat of shellac.

In mounting your propeller a stiff piece of wire two inches in length is passed through the hole at the center and firmly wedged so that it will not twist or turn. It is a good plan to buy from the supply houses the metal axles which come for this purpose. They cost but a few pennies and are firm and true. When your propeller is mounted, test its symmetry by holding it horizontally to see if it exactly balances. If it does not balance, sandpaper away some of the heavier blade until both weigh the same. You are likely to spoil several blanks before you succeed in whittling out and finishing a perfect propeller, but it is very interesting work, and will be excellent practice for the rest of the model aëroplane construction which is to come.

The Wings

For your model aëroplane you will need two planes or wings. The construction of these wings is comparatively simple, and any boy with a little practice will soon be able to build light and efficient planes. The model aëroplane is equipped with a larger wing, measuring about thirty-six inches, and a smaller plane one foot in length and the same width. The idea is to have the planes as light and strong as possible with every detail carefully finished. The slightest projection or even roughness of the wings will increase the wind resistance. At the same time they must be strong enough to withstand a serious bump when landing.

The best material for the wings is spruce and bamboo strips. The spruce strips should measure about one eighth of an inch by three eighths. Secure three of these thirty inches in length and three ten inches in length. The bamboo should be one eighth of an inch thick and about one quarter of an inch wide. You will need about a dozen such strips. If you cannot find such material near home it can be bought for a few cents from the supply houses. The spruce and bamboo are not essential, however, and good wings can be built of some other strong, light wood.

Build the largest plane first. The construction is very simple. Lay the three long spruce strips on a table parallel to each other, the outside strips six inches apart, and place the third strip two inches from the front edge of the plane. The wing is now built up by fastening the short strips of bamboo at right angles, forming a series of ribs. The bamboo is so thin that it is unnecessary to mortise the strips. They should be glued in position, and then firmly tied with a few turns of strong thread. The splice is then painted with shellac or glue. The outer ends of the plane should be curved. This is done by bending one of the bamboo strips after first soaking it in water. Care should be taken to have the edges as sharp as possible. This is the simplest form of plane. Later planes should be built slightly curved upward by bending the short ribs, or inserting wedges under the central crosspiece. The same plan should be followed in constructing the smaller plane.

The wing should be covered with some light material, preferably silk or paper. The best material is bamboo paper which can be bought cheaply from the supply houses. Cut two pieces for each wing one inch larger all around than the frame. The paper should be soaked in water and then stretched over the frame and pasted,

and the outer edges turned neatly over and pasted down. When the paper dries it will shrink slightly, leaving the surface taut and smooth. The entire wing should then be painted with a thin varnish, or, better, a waterproof preparation sold by the supply houses. Do not use nails or brads in any part of the wings. The planes will later be fastened to the frames with a few single strands of rubber. This makes it possible to move them easily and takes up the shock of a sudden landing.

The Frame

There has been a great difference of opinion in the past as to the best form of frame for the model aëroplane and many successful models have been built along entirely different lines. Most model builders in the United States and England, after countless experiments, have come to use much the same kind of frame. The idea, of course, is to combine extreme lightness and simplicity of construction with the greatest possible degree of strength. The frame must be tough enough to withstand the powerful pull of the rubber motors when wound up to the limit.

The frame is almost invariably a long triangle built of strips of spruce. The base or short side of the triangle is used for mounting the propellers. The strips of rubber which form the motors are strung from the propellers at the base to the forward or sharp end of the frame. The planes or wings are fastened to the upper side of the frame, the larger wing near the base, the smaller one well forward near the pointed end. The exact position of the wings on the base cannot be decided in advance. The best plan is to experiment with them in different positions until the best result is obtained, when they are fastened by tying with rubber bands.

The size of the spruce strips may vary, but the best dimension is about three eighths of an inch by one quarter of an inch. Select straight grained wood, well seasoned, and without flaws. It will be well to start with a frame about thirty inches in length. You will therefore need two strips of the same length, say, thirty inches. The base of the frame or triangular frame will be a strip of spruce twelve inches in length, and about three eighths by one quarter of an inch. All the strips should first be planed smooth and sandpapered.

The two longer strips are fastened securely together by beveling them slightly at one end and gluing and binding them together with strong thread touched with glue. Now take a piece of stiff wire four inches long, bend it in the form of the letter V and bind this securely over the point of the frame. Next bend back the ends of the wire to form two round hooks, over which the rubber strands of the motor may be looped.

Before attaching the base stick to the frame, drill holes through them with a gimlet about three eighths of an inch from the ends. The base is then attached to the other sides of the triangle by slightly mortising the ends of the frame and the base stick and fastening them rigidly by gluing and tying. Do not use nails of any kind. Do not cut away the sticks far enough to weaken them, for they are already light and you will need their entire strength. The entire frame should now be carefully sandpapered and varnished. There are several special preparations manufactured for this purpose, but a thin varnish will answer. It is important that every part of the frame be smooth and free from projections in order to reduce the wind resistance.

Propellers and Motors

The mounting of the propellers and installation of the motors is the last stage of

the construction of a model aëroplane. The only material absolutely necessary to purchase for these parts is the rubber for your motor. The best results are obtained by using thin strips of rubber about one quarter of an inch in width. This can be bought from the model aëroplane supply houses. It is possible to get short flights out of your model with ordinary rubber bands looped together, but these makeshifts are not satisfactory. You will need enough of this strip rubber to make twenty loops from the hooks of the propeller to the end of the frame, and it is well to have a supply on hand in case of accident.

The beginner will save himself a great deal of trouble by buying ready-made the axle for his propellers, and the shafts in which they turn in the base stick. These can be bought for a few pennies and will work more smoothly and with less friction than any home-made contrivance. In case you prefer to make these parts yourself, take two stiff wires three inches in length and fasten one in each of the propellers, wedging them fast in the holes through the center of the hubs.

Through the holes in the base stick now insert small hollow wires or tubes just large enough for the shafts of the propellers to turn in them smoothly. These tubes should project slightly beyond the sides of the base sticks. Small metal washers should be slipped over the shafts and the wires then put through the tubes in the base. The washers will help to reduce the friction when the propeller turns. The ends of the wires are then bent into the form of blunt hooks inside the frame or base to hold the rubber strips of the motors. The propellers should turn or spin smoothly at a touch, and be so placed that the outer ends of their blades will clear each other by a safe margin.

The motors are now installed by looping the strands of rubber between the hooks of the propellers and the hooks at the outer end of the frame or base. Begin your flights by using eight or ten strands. The rubber should not be tight but looped very loosely, so that it sags for several inches in the middle. Energy is stored up in the motor by turning the propellers in opposite directions until the strands are tightly knotted. It is important that you get as many turns as possible. A good plan is to have one end of the rubber strands attached to a hook which can be hooked on to the wire hook at the forward end. It is slow work to turn them by hand, and a winding apparatus, much like an egg-beater, is generally used, which turns the strands several times with every turn of the hand. Begin turning by drawing the strands out tight and moving up as the twists appear. It may be impossible to run the strands until the third row of knots appears.

When the motor is ready the model is launched in the air by holding the propellers in one hand and the frame in the other and throwing it forward and upward. Move the planes back and forth until the model flies on an even keel.



Something brushed across his face

The Emerald Buddha

By John Garth

Illustrated by Forrest Orr

PART I

DICK WARRENDER stood motionless, legs apart, hands resting on slim hips, his amazed, incredulous gaze wandering from his brother to the serious, impassive Malay guide and back again.

"Oh, come now, Jerry!" he protested. "An emerald as big as a *hen's* egg! He's spoofing."

The older fellow shrugged his shoulders. There was a curious glitter in the gray eyes that looked so oddly pale in contrast with his deeply tanned face.

"It does sound rather wild," he acknowledged. "But you must realize that this is a country where the unusual happens pretty often. And I'm quite sure Sarak isn't trying to put one over on us. Whether or not the thing is true, he believes in it."

Dick pushed back his hat and ran his fingers through a mop of tangled yellow hair. "But an *emerald*——" he began again, only to break off with a helpless laugh. "I can't seem to get it through my nut. If it were only hidden away in some secret spot, with the key to the hiding-place handed down from generation to generation or something like that, I'd understand. That would

be like the general run of treasure tales you hear or read about. But to have it there in plain sight—held out in the hand of this idol, or whatever the thing is, for any one to take—— Say, why the dickens hasn't somebody picked it up long ago?"

"Superstition for one thing," Jerry Warrender answered. "According to Sarak, the natives are afraid to go anywhere near the place. He admits that he'd never have dared to hunt it up deliberately. He stumbled accidentally on the ruined shrine when he was up this way over a year ago, and I guess he beat it about as quickly as he could. Apparently the whole place is *taboo* for the natives, and there's a legend that whoever even touches the sacred image or the emerald will meet with an instant and horrible death."

"Blasted by lightning, I suppose," sniffed Dick. "That's all very well for Dyaks and Malays and such, but how about white people? Do you suppose they'd swallow a yarn like that?"

Jerry leaned back against the trunk of the giant teak towering above their heads. "As a matter of fact," he said, "I don't suppose there've been any who knew. There are several things you're not taking into account, old man. There's less known about central Borneo than almost any other country on the globe. It's not a place for white people; there's nothing to attract them so far from the coast. This is your first trip out, but in my four years of orchid hunting there've been times when I've gone for five or six months without laying eyes on a white man. Moreover, the natives don't tell these things to everybody. If I hadn't done Sarak a good turn with that bull elephant the chances are a thousand to one that we'd never have heard a whisper about this—emerald Buddha."

Dick moved uneasily. "But is—is such a thing possible?" he asked at length. "I know I'm green, but it all seems such a wilderness. What would a Buddha or anything else of the sort be doing in a jungle like this?"

Jerry laughed a little. "Possible?" he repeated. "Anything is possible in the East. The very soil seems older, somehow, than in other countries. You know some of the things I've stumbled on—acres of ruins in the midst of dense forests; ruins of cities so old that even the memory of them has perished. I've seen ruined temples covered with the most amazing carvings entirely overthrown by great trees growing up within their walls. Of course they were never built by the savages who live here now. They must have been the work of quite a different race, but who they were and where they went and when and why no one seems to know, least of all the natives. They simply believe the ruins are haunted by evil spirits, and avoid them like the plague. Even an emerald such as Sarak speaks about would be quite safe from them."

He paused. Dick was conscious of a queer tingling thrill, and a touch of red darkened his tanned face. What if the tale were true? At first it had seemed too incredible to believe, but now—— He recalled the Malay's simple, yet vivid, description of the strange jungle-god enthroned at the top of a ruined flight of steps, with one hand eternally extended and in the palm that amazing jewel worth the ransom of a king. Even in the telling Sarak's voice shook and his brown face took on a strained and frightened look.

The boy glanced at him now, squatting motionless close by, and surprised an unwonted touch of anxiety in the eyes that were fixed so intently on Jerry. His gaze, passing by the silent Malay, swept over the close-set, serried ranks of teak and iron wood and *tapan*, bound together by rattan and other ropelike vines into a dense, impenetrable screen which for days had kept

them in a perpetual twilight. And suddenly imagination stirred and woke within him as he sensed something of the strangeness and mystery of the place. Jerry was right. The jungle was capable of holding almost any secret.

"You mean to—to look for it?" he asked abruptly, and was much surprised at the curious, tense undercurrent in his voice.

Jerry nodded. "I think so. You know what it would mean to us if we—succeeded."

Dick knew only too well. It would mean an end to these long separations—an end to the elder brother's perilous expeditions through savage countries searching for rare orchids, the sale of which was giving Dick his education and slowly piling up a nest egg to start them both in life. Jerry was all he had, and Dick never said good-by to him without an awful haunting fear that he might never return. The very possibility of these partings being ended for good and all quickened his pulse and brought a sparkle to his eyes.

Jerry smiled slightly as he watched the boy's face. "You mustn't count too much on it, though," he said. "It may not be an emerald or anything worth while. We might not find the place; a thousand things might happen. But at least it's worth trying. For a short trip this has been pretty successful. To get you to school on time we'd have to turn back in ten days at the latest, and I'm willing to give that much time to the search just on a gamble."

"But is that enough?" Dick asked eagerly. "I thought—— How far is it?"

"Don't know exactly. Sarak thinks it's about——"

He broke off abruptly and turning his head swiftly to one side sat listening. All about them pressed the stifling noonday stillness of the jungle. The gaudy parrots had ceased their raucous flittings in the treetops; the monkeys had departed. Even the native porters in the little camp beyond the screen of trailing vines were apparently asleep. Dick was not conscious of a sound, and yet an instant later Sarak sprang up and glided noiselessly into a thicket behind the teak tree followed closely by Jerry. The latter reappeared a moment later and swiftly crossed the glade toward the camp.

"What is it?" whispered Dick.

Jerry shook his head silently and motioned the boy to follow. Together they pushed through the curtain of trailing vines and paused on the edge of the wider clearing which had been hacked out of the jungle.

Two tents stood there and a number of flimsy native huts thatched with palm leaves that housed the carriers. The only person in sight was a slim, lithe, dark-faced man clad in shirt and trousers of dirty white. He had a thin, narrow face with very thick, black brows, and as he glanced at the brothers his expression struck Dick as oddly and unpleasantly sinister. An instant later the impression was gone. Yawning elaborately, he lounged toward them, his white teeth showing in a smile.

"The señors do not take their siesta?" he drawled.

"As you see," returned Jerry briefly. "How about you, Garcia?"

The fellow shrugged. "Oh, I have finish."

Jerry eyed him intently for a moment. "That being the case we may as well arrange for a shift," he said quietly. "The country around here has been pretty well cleaned out and I want to move on to-morrow. You'd better get the specimens and as much of the luggage as possible packed up this afternoon so we can make an early start."

There were no signs of surprise in Garcia's smiling acquiescence. "It shall be done," he stated smoothly. "And where does the señor t'ink of going?"

"I haven't decided yet," returned Jerry briefly. "I'll let you know to-night."

A few more words were exchanged relating to the care of the orchids. Then Garcia retired to the smaller of the two tents, while the brothers strolled off in a careless fashion through the jungle.

"Do you think he heard?" asked Dick in a low tone, when they were out of earshot.

"I'm almost certain of it." Jerry's tone was vexed and his brow furrowed. "I hoped we'd catch him, but he was too quick for us. Certainly some one was hiding in that thicket just behind us. Sarak and I both saw the traces at once. And if it wasn't Garcia, who was it?"

"I never could stand that fellow," Dick said emphatically. "He's much too smooth and oily for me. I don't see how you've put up with him so long."

"Simply because he's useful," shrugged Jerry. "For some reason he's able to get together a crackerjack bunch of carriers, and he manages to hold them, too. I've never been so well served as these last two seasons when he's had charge. Naturally I'm not keen about him personally, and I shouldn't trust him very far, though up to now he's been straight enough."

"He's a half-breed, isn't he?"

"Yes; part Spanish and part Malay. It's a queer combination, especially for this locality. I don't know anything about his history, but he certainly stands in well with the natives, and he's got a fair enough reputation down on the coast."

"I wouldn't trust him out of sight—or in it, either," declared Dick. "If he knows what we're after, what's to prevent his turning the whole bunch against us and getting whatever he wants?"

"Sarak."

Dick stared. "You mean——"

"Just that. Sarak has more influence with the gang than even Garcia. It seems he's the son of their old chief, though I didn't know it 'til we had that heart-to-heart talk after the elephant fracas. He'd do anything for us now, and I'll back him to block any deviltry Garcia may try to put over with the men. All the same, I'd give a lot if he hadn't gotten wise to this business. He's much too handy with the *kris* to make him a pleasant person to be up against."

Absently Dick's eyes followed the lazy flight of a huge crimson butterfly which made a drifting spot of flame against the dark background of the jungle.

"Mightn't it be better to give up the whole thing now," he suggested, "and come back another time without Garcia, and with a different lot of men?"

"Nothing to it," declared Jerry decidedly. "We're within three or four days' journey of the place, Sarak thinks, and Lord knows if I'd ever get so close again. You know this life. Fever, a poisoned dart, a snake bite—there's any one of a hundred accidents that can put a fellow out of business as quick as winking. No; chances like this don't come often and when they do you have to snap them up on the spot. We'll have to keep a sharp watch on Garcia, but we're three to one, and that's good enough odds for anybody."

They were up at dawn next morning and little more than an hour later the tents were packed and a string of porters, shouldering luggage and the small, carefully packed bales of orchid roots, began their slow progress through the jungle.

Four Malays in charge of Jerry, armed with axes and long, heavy-bladed knives, went ahead to cut a way through the dense thickets and entangling vines. Sarak was with them, while Dick, keyed up and restless, moved back and forth along the straggling line, sometimes chatting with his brother, but more often lingering near Garcia, who kept mostly with the porters.

If the half-breed knew as much of their

plans as they suspected, he was an artist in deception. Even Dick, watchful as he was, could find nothing in his manner or conversation to take hold of. He chatted casually and naturally, yelled at the porters, laughed, joked and even asked about their destination, which, unless he was very subtle, was a subject the ordinary plotter would be much more likely to avoid.

"He's slick, all right," remarked the boy to Jerry during one of the brief halts. "He hasn't given himself away a particle."

"I didn't expect he would," smiled the older brother. "He's not the kind you catch napping."

They camped that evening on the bank of a small river and during the night one of the three was always on watch. But nothing came of it; apparently Garcia did not open an eye till morning. The second day was a repetition of the first save that the half-breed seemed to have rather more than usual to say to the natives. Unfortunately Dick did not understand the language. It might have been merely idle chatter, but several times he seemed to sense a note of seriousness in Garcia's voice, and more than once during the latter part of the afternoon he caught a curious, furtive expression on one or another of the Malays' faces which made him wonder. He did not speak of it to Jerry. It was all too indefinite and uncertain, and he had a dread of being laughed at, or of giving the impression that his nerves were getting the best of him. Nevertheless, in spite of Garcia's suave blandness, he had a vague, uncomfortable feeling that something he could not understand was going on under the surface.

Late the following afternoon things came suddenly to a head. They had left the lowlands and the river and had begun to ascend a gentle grade which seemed to be the lower slope of a range of mountains. From the very start Dick noticed that the men seemed curiously reluctant to proceed. As the day advanced they lagged perceptibly, and though Garcia stormed up and down the line urging them on, he had little success. Presently Sarak came back to try his influence, but his words had no effect save to bring out a stubborn, sullen expression on the dark, impassive faces. He had barely returned to Jerry when Garcia hurried up.

"Zee men—they no go on," he stated in his broken English.

Jerry looked at him keenly. "Won't go on?" he repeated. "Why not?"

Garcia spread out his hands in an expressive gesture. "They say zee place we go to is—how you say it?—it is haunt. The evil spirits live zare."

Jerry's eyes narrowed. "How do they know where we're going?" he asked sharply.

Garcia shrugged his shoulders. "Zee mountain yonder—they say he full of spirits zat eat up brown man. They go any place, Meester War'nder, say 'cept zat. For me, I care not'ing, but zee men, they 'fraid."

For a moment Jerry stood frowning. Then his shoulders squared. "Very well," he said curtly. "We'll make camp here. I suppose they're not at all afraid to do that?"

"They no like, p'raps," shrugged the half-breed, "but mus' do. I go to tell."

Jerry's eyes followed him for a moment or two. Then a few rapid words sent the four Malays back to join the others. When they were out of hearing he glanced significantly at Sarak, who stood quietly beside him.

"Some of his dirty work," he commented briefly.

The Malay nodded. "I t'ink so. Not many know jus' w'ere thees place ees. He tell them we go, an' then they 'member t'ings they hear 'bout Devil Mountain."

"Exactly. That shows he spied on us

staring, and once, as Dick touched his hand in moving, he found it cold as ice.

It was Jerry who presently suggested that they turn in, and who arranged the watches. He himself took the second one, allotting the first to Sarak and giving Dick that period between midnight and early dawn.

The latter had never felt more wide awake. In spite of his loss of sleep the night before he found it impossible to close his eyes. Lying there in the most comfortable position he could assume, his gaze wandered restlessly from Sarak's motionless sitting figure to Jerry's prone one, thence to the black arch above and back again, a wearisome, eternal round. The slightest sound—and there were many queer cries and calls and rustlings both far and near—smote on his ears with curious distinctness. One in particular, a strange whistling shriek that rang through the jungle like an echo, growing fainter and fainter until it died away, he found especially trying. Once or twice as he stared upward he seemed actually to sense a moving blackness darker even than the night itself, that hovered above their little fire. But at that point he dug his teeth into his under lip and a swift rush of shame came over him that he could allow nerves and fancies to bring him to such a pass.

He got some sleep at last, but it was not until after Jerry's watch began, and it seemed as though he had scarcely closed his eyes before he was shaken into partial wakefulness by his brother.

"Time, old man," whispered Jerry. "You certainly were tearing it off to beat the cars."

Dick blinked, rubbed his eyes and sat up. Ten minutes later he was still sitting there, hunched up a bit, his hands dangling limply from his knees. On either side of him lay the sleeping figures of Sarak and Jerry; in front the fire, recently replenished, burned brightly. He stared at it dully with sleep-filmed eyes. Presently his head drooped, lifted slowly, drooped again until his forehead rested upon his upraised knees. . . .

He seemed to be alone in the forest walking endlessly. It was night, yet there was a curious luminous quality in the atmosphere which came, apparently, from little dancing globes of clear white fire. He looked closer and saw that the globes were held by shadowy figures which were like misshapen men floating through the darkness. One of them swept close to him and in the light of the glowing sphere he recognized the face of Garcia, set in a leering, sinister grin. The face passed on, drifting into the night; the other shadows vanished. Somewhere in the infinite blackness of space another light sprang up. Tiny at first, it brightened swiftly as it came toward him until at length the serried ranks of giant trees were lit up brilliantly as with the passing of a flame. And then he saw, floating toward him through the forest, the seated figure of a man. The face was calm, almost expressionless, yet in the eyes and in the evil half-smile there seemed to lurk the piled-up wickedness of untold centuries. One hand lay upturned in its lap, the other, outstretched, held a great crystal which blazed fiercely with a strange green fire. The boy tried to cry out but could not. He strove to fly from that placid, smiling horror, but was powerless to move. On it came, floating as on a river, closer and closer still. The hot breath of its passing swept the boy's face, and then and only then, with a frantic struggle and a smothered cry, he burst the hideous nightmare thralls and woke.

The fire had died to a red glow. The jungle pressed close about him, black and silent. And yet he could have sworn that an instant before something had brushed across his face; something real, concrete and not the figment of a dream—something whose very presence brought out

chill perspiration on his forehead and fear to his heart.

With trembling fingers he felt for the rifle which lay beside him. There was reassurance in the touch of the cold steel. The pounding of his heart lessened a little and reaching out to the woodpile he threw a couple of sticks on the embers. A brief pause followed; then the flames licked up the sides of the dry wood. An instant later there was a beat of wings and something vague, black, monstrous swept out of the darkness straight at him.

In that flashing second Dick was conscious only of vast wings covered with skin-like oiled leather. There was a gleam of gray-brown fur, the vague glimpse of a vicious looking head with sharply pointed ears that seemed as big as a leopard's. He had just time to fling one arm across his eyes when the thing struck him full, flinging him backward to the ground, and a claw tore sidewise along one cheek. At the same instant the embers of the fire were scattered far and wide and he was plunged into suffocating darkness.

(Continued on page 113)



Dick, keyed up and restless, moved back and forth along the straggling line

Abraham Lincoln True Scout

By Ida M. Tarbell

THE man was in a hurry. His long arms swung back and forth like the blades of a wind mill, and the big strides he made took him over the ground almost as fast as a horse would have traveled. His high hat, the kind that men wore in 1850, was set back on his head, the big, flat bow under his loose collar was awry, and his long black coat-tails stood out as he strode over the ground.

"Mr. Lincoln is in a hurry this morning," a neighbor, looking out of the window, said to her husband.

"Late to court, I suppose."

Then, suddenly, as they looked, the hurrying man came to a standstill. They saw him bend over the figure of a little girl at a gate. If they had been near enough they would have heard him say, "Why, Mary Brown, what's the matter?"

"Oh, Mr. Lincoln, I was going to grandma's to-day, and the man hasn't come for my trunk, and mother says I can't go." And now the sobs were out loud, and the tears streamed down her face.

She was a pretty little girl, in a fresh pink gingham frock, a little white jacket, scalloped neatly around the edges, and a big, white leghorn hat with roses on it, all dressed up fresh and shiny for her trip. And the man had not come for her trunk!

Mr. Lincoln, everything forgotten but the little girl's trouble, thought a moment. "How big is that trunk, Mary?"

"Oh, it's just a little trunk, Mr. Lincoln. Just grandma's little old hair trunk. She gave it to me, and I always carry it when I go to see her."

"Ho! Ho! Come quick, and we will see what we can do." And Mr. Lincoln strode into the house, his whole face aglow, calling out, "Mrs. Brown, Mrs. Brown, where is Mary's trunk?"

Two minutes later the neighbors saw Mr. Lincoln with a little brown hair trunk on his shoulder hurry out of the house, Mary Brown dancing by his side, trying to keep up with him as he fell again into his long strides. His face had lost its look of anxiety. He was laughing happily as he assured the little girl that they would catch the train.

"Now, if that isn't just like him," said the neighbor. She came out to the fence and called to Mrs. Brown, who had been watching the little girl and the big man disappear. Mrs. Brown, her eyes full of happy tears, came over, and the two women talked.

"Who in the world would ever have thought of such a thing but Mr. Lincoln? Of course, it is just like him. He is always doing things like that. I never saw such a man. Do you remember that story old Doctor Chandler told us the other night? That, twenty-five years ago, a land shark was trying to go into Springfield ahead of him to prove up on a quarter section that the doctor had built on, but had not yet been able to pay for, and when he was hurrying to get up here to fix the thing up before the shark came his horse gave out? You remember how

he told us that suddenly as he stood beside it, not knowing what he was going to do, a boy of seventeen or eighteen, on a lively, fresh horse, passed him; saw something was the matter; turned back; asked him if he could do anything; and when the doctor told him his story, that boy, without saying a word, jumped down, picked up the doctor's saddlebags, put them on his own horse, and said, "Get up and go; get her there before that shark." And that boy, you remember, the doctor said, was Abraham Lincoln."

"Yes, he was always just like that; always doing a good turn for somebody."

"And then I have heard the lawyers that rode with him on circuit tell how he could not see anything in trouble as they went along without trying to help; no matter how busy they were, how serious the things they were discussing, how much in a hurry they were to get to the next town, if Mr. Lincoln saw anything in trouble nothing would do but he must help it out. Why, I have heard Harry Whitney tell about his getting down one day and spending a lot of time putting little birds back in their nest when the mother was making a great stir about them. And do you remember how provoked they were with him once when he turned back two or three miles to get a pig free from a fence in which it was caught? He had seen it struggling there, was afraid it would not get out, but would kill itself if it did not have help, so he went back. They could not laugh him out of such things. There was no business so important that he would not stop and help bird or beast or child that was in trouble."

This was Abraham Lincoln in 1850. Ten years afterward he was made President of the United States. He became a great President; one of the greatest leaders of men the world has ever known. He had heavy burdens to bear. For four years or more there was no time that his heart was not heavy with sorrow and his mind full of terrible problems; and yet there was never a day in all that fearful time that he would not stop to consider the sorrows and the wants of a man, a woman, or a child, however humble.

It was his custom in those days to go back and forth between the White House and the telegraph office of the War Department to get first-hand news of military movements and battles. Sometimes, when great struggles were going on, he would sit for hours reading the yellow sheets as they came off of the telegraph instrument. They were terrible days for him, but not so terrible that he could forget those about him and their needs.

The grounds of the White House were open in those days, and soldiers who happened to be in Washington, particularly those that were convalescing from wounds, used to go there to sit on the benches under the trees. Again and again, particularly if they were looking downcast, a tall man would sit down and talk to them. He had a kindly smile, and a lonely soldier would soon tell him his story. Every now and then there turns up in some part of this country a little white card that this tall friendly man had given to a soldier whom he found sitting on a bench in the White House grounds.

I have seen a check for five dollars made out in this way: "Pay to colored man with one leg," and signed, "A. Lincoln."

The colored man with one leg did not know to whom he was talking until he saw the signature!

One day a gentleman passing through the White House Park saw Mr. Lincoln listening to a soldier who was evidently in a violent rage. He stopped within hearing distance and gathered that the man had just been discharged from Libby Prison, and, though he had his hospital certificate, had not been able to get his pay. He had not the least idea that he was abusing the

President to his face. When he stopped for breath the gentleman heard Mr. Lincoln say:

"Well, now, let me see those papers of yours. I have been a lawyer myself; perhaps I can help you."

They sat down at the foot of a tree, and, after looking over the papers, the President penciled something on them, told the man where to go, and went to the War Department.

As soon as Mr. Lincoln was out of sight, the listener went up to the soldier, asked him what the trouble was and what was written on the paper. Here was the note: "Mr. Potts" (Mr. Potts was the chief clerk in the War Department), "attend to this man's case at once and see that he gets his pay. A. L."

News of Mr. Lincoln's daily good turn to soldiers in difficulties spread abroad, and all through the army the men came to have that profound confidence in him that led them to speak of him as Father Abraham. Again and again, when they could not get their troubles righted elsewhere, they would push themselves into the White House, and almost always come out with the little white card which all Washington was obliged to obey. I have seen one which read:

"Sec. of War, please see this Pittsburgh boy. He is very young, and I shall be satisfied with whatever you do with him.

"Aug. 21, 1863. A. LINCOLN."

The Pittsburgh boy was one of many who had slipped into the White House, put his case before the President, and received his help.

The sorrows of women always went straight to Mr. Lincoln's heart, and he would stretch military law as far for them as he would for soldiers who were in distress.

Innumerable stories are told which reveal the efforts he made to help the mothers and the wives of soldiers.

There was never a time through it all that he was too busy to remember his own boys and their happiness. He was as wonderful a father as Theodore Roosevelt, never forgetting them or the things they loved when they were away from the White House. Scattered among telegrams pardoning soldiers, ordering great generals to do this or that, one finds telegrams for Tad, sent when he was away in New York with his mother:

"Tell Tad the goats and Father are very well, especially the goats," he wired one day. And again, "All well, including Tad's pony and the goats."

You see Abraham Lincoln was a true scout.

A true scout! Trustworthy, Loyal, Helpful, Friendly, Courteous, Kind, Obedient, Cheerful, Thrifty, Brave, Clean, Reverent.



The Boy Lincoln

By G. ELLIOT

BESIDE the flickering cabin fire
He feeds the flame of his desire
With books the neighbors lent.
The ruddy embers cast their glow
On that strong face which ponders so
On printed page intent.
Whatever he can get by chance
Of fact full much, of small romance,
The boy who conquers circumstance,
The mind on knowledge bent.

Outside the forest stretches wide,
The cabin huddles by its side
A single spot of light.
The only sounds, a night owl's cry.
The many treetops' quivering sigh,
The bleak wind's eager flight.
Across rough fields where Abe must drudge,
Along the mud road Abe must trudge,—
The homely tasks he does not grudge
To earn his books at night.

In that rude room of long ago
With printed page by firelight glow
What boyish visions start!
No prophet with inspired sight
Foresees in what crusade of right
The boy will play his part.
The world looks back a little space
And knows that time can not efface
The firelight glow upon his face
That passed into his heart.



The picture of Lincoln reading by the cabin fire is from Hill's "Lincoln's Legacy of Inspiration," by courtesy of the Frederick A. Stokes Co., publishers. The other illustration is from "Abraham Lincoln," by James Baldwin. Copyright, 1904, by the American Book Co. Used by permission.

ANIMAL ENGINEERS



Fitting timber into the dam



Beaver work on a tree one and one-half feet in diameter





The dam

The beaver house









Towing a branch to the dam



Storage of winter food



Filling crevices in the dam with mud

Building foundation of the house

Animal Engineers

By Raymond L. Ditmars

WE read much about animal sagacity and there is a common query—"Which is the most intelligent animal?" This query most frequently relates to the results in training animals to do surprising things or to do the "smart" things that many captive animals do. Association with the human and the artificial conditions of captivity bring forth many surprising traits in animals, but such have little to do with this story. When the writer is asked which he considers the most intelligent animal he has no hesitation in answering, although the subject designated may cause much surprise.

Despite the adaptation of the horse and the elephant to domestic use, the docility and affection of the dog, the marvelous feats accomplished by trained sea lions and other marked demonstrations of intelligence among the larger animals, the writer is unwavering in his decision and this comes after years of observation and deduction. He picks the *Beaver* as the star of animal sagacity. And the choice comes from an order of mammals not usually credited with a high degree of intelligence. This is the order of rodents, or gnawing animals. It contains an immense number of species, the greater number of small size and scattered over all parts of the world. To this order belong the rats and mice, the squirrels, porcupines, rabbits and marmots. The prairie "dog" is a member of this order and a fair rival of the beaver in solving problems of ingenious construction.

All the rodents are characteristic in having strangely developed incisor teeth—those immediately at the front of both the upper and the lower jaw. These teeth, proportionately larger and longer than with other animals, are continually growing and their edges meet in a fashion to become much sharpened during constant use like a double set of rapidly moving chisels. Thus the rat gnaws holes through wood and plaster, the squirrel gnaws through the shells of the hardest nuts and the porcupine—much to the chagrin of the camper—chisels out a generous hole in one's camera in solving the nature of the interior.

In beginning the actual history of the beaver, it should be understood that the writer has selected this type of animal sagacity owing to its ingenious life in the wilds and the wonderful things it does without any inducement or influence other than its desire to live a type of life made safe and orderly by its skilled and tireless labor. Its orderly and thrifty methods of existence might well be copied by many members of the human family. However, there is another point in the life of the beaver and that is science. This animal is a veritable engineer and the writer will prove this as he progresses with the story.

The beaver is fitted for a life in the water. Its feet are webbed and the tail is flattened in the form of a strong paddle. It is the largest rodent of North America and attains a weight of about forty-five pounds and a total length of a yard. It lives along streams, but much improvement is necessary in preparation of the home site.

Let us presume that a pair of beavers

have sallied from the home colony to establish new quarters. Wandering along a sluggishly moving stream, which is but a few feet deep, they pause at a location where the waterway widens a bit, possibly to a breadth of about thirty feet, and here they do surprising things. Small saplings near the water are quickly gnawed down, each beaver squatting in easy fashion, turning its head to one side, while the adz-like teeth gnaw quickly through a trunk from one to two inches in diameter. It requires but a few minutes to gnaw through the latter thickness and but a few passages of the keen teeth to fell a young tree thick as a broom-handle. As the growth topples over the beaver tugs and pulls to note how heavy it is. If the upper growth is thin and the sapling in consequence is light it is at once dragged to the stream and then towed to the center. Here the beaver dives, imbedding the upper, brushy portion of the sapling in the mud. The animal immediately returns to the shore. The thicker trees, too heavy to be towed, are gnawed into sections, the brushy upper portions are towed out, firmly gripped by the powerful teeth, thence imbedded by diving and shoveling the muddy bottom. Progress is rapid. Water-logged sticks are also gathered to form the base of what soon appears to be an island of circular form and about eight feet in diameter. The tireless labor continues day after day.

Within from three to four days' time the island has assumed a substantial and permanent appearance. Its base is now composed of brush well jambed and woven, and the interspaces are generously filled with water-soaked débris from the bottom, while quantities of mud have been deposited upon the top. The method of carrying the latter is particularly skillful. Each beaver works at the very edge of the stream, gathering in its jaws a bundle, crosswise, of wet and dead twigs, then by a scooping process it heaps the bundle with mud and swims with head carefully reared and burden braced by the forelimbs. This means a great number of quick trips and the animals work feverishly pushing the material into place with the snout.

When the island, flat and of solid appearance, is a few inches above the level of the water the beavers change their tactics and commence a great number of trips with quite smooth sticks. These are gnawed and trimmed with precision, in lengths of from two to three feet, and from one to two and one-half inches thick. At first these, a great many of them, appear to be scattered over the island in confusion. Areas near the stream are now well cleared of smaller saplings, the stumps protruding in all directions, the base sharpened to a point in the characteristic fashion of beaver work.

From the confusion of tangled sticks on the island there gradually appears the form of a carefully braced and moundlike structure. It rises to a height of about four feet, is hollow within, and, once its outer wall is completed, the floor is built up about a foot and a half higher—or safely higher than the level to which these animal engineers intend to raise the stream. On one side of this beaver-house is a circular opening, which at present is close to water level.

And now we come to the most marvelous of the beaver's accomplishments—the feat of building a dam, and we shall understand a point which has possibly puzzled many of us, and that is the *reason* for building this dam.

There is a bit more work to do on the log shelter to fill the chinks. This is very easy for such intelligent workers. Smaller brush, leaves, mud and bundles of dry grass go into the crevices and soon the beavers are able to walk over all parts of the structure in putting on the finishing touches.

Work on the dam is now in order and this means additional clearings, as a great amount of timber is necessary. The banks of the stream begin to show quite an open character, as the saplings fall, are cut up, and the sections towed to the site of the dam.

During this work another interesting characteristic of the beaver is displayed, that is, the animal's thrift and elimination of waste. Its favorite food is green bark and this is easily obtained. Many branches are stripped by the broad incisor teeth and for a time these lie in confusion along the banks—but not for long. The foundation of the dam rises in much the same fashion as that of the beaver's house of tooth-hewn timber, and once the outline is established there is a general clean-up on shore. Sticks that have been gnawed free of bark are simply carted to the water and turned loose as is much other débris in the shape of fine, loose brush, left over from the larger cutting. This material floats down stream and lodges against the framework of the dam, where it is worked into the crevices and is followed by water-soaked materials, much mud and wet leaves from the stream bottom. The dam is soon effective and the stream begins to rise. The beavers now work at the base of the dam, making it broader by packing it with mud and producing the same foundation of generous breadth at the bottom with an inward curve toward the top that we note in the most approved feats of human engineering in retaining and raising bodies of water.

Now we have an opportunity of observing and understanding the reason for the beaver dam. All that we have to do is to watch what happens to the beaver-house as the water rises and submerges the lower portion of the log shelter of these aquatic engineers. The writer has already described the entrance of the house, constructed close to the original water level. As the dam becomes effective and the stream rises, this entrance of the dwelling in midstream becomes completely submerged and the beavers enter and leave the house without giving indications of their movements or location, as they dive some distance away from the house and approach the entrance under water. Moreover, the general depth of water is so much greater that the security of these expert swimmers has been much increased. Thus the question, "Why does the beaver build a dam?" is clearly answered by the accomplishments that have taken place.

With the arrival of autumn, another big job must be accomplished. This is the storage of a winter's food supply—an immense amount of sticks, from which the bark may be gnawed. The whole operation is tackled in the same ingenious way as all beaver jobs—with fine intelligence and system.

It may happen this time that the beavers decide to bring down the whole supply of winter-food wood in one grand crash and they have worked steadily several days, in fact, on a tree a foot and a half in diameter. They have gnawed this in a circle, the great cutting sloping inward like the outlines of a stout hourglass. Masses of chips, four to five inches deep, lie about the base of the tree, and most of the work is done at night. Viewed by human eyes in daylight, the skillfully cut trunk and the mass of chips would appear to represent labor beyond the power of any animal.

As the beavers progress with the task, they concentrate their work upon one side, usually that nearest the water. The hourglass outline loses its contour as they enlarge and deepen the orifice on this side. Now we realize that their object is to cause the tree to fall toward the water. This saves steps and much pulling and hauling of heavier branches.

The beavers appear to realize just when the crash will come. There is no peering

up at the tree, no hesitation. They continue to gnaw right up to the time that a crackling at the base indicates that the tree is about to fall; then they scurry out of harm's way—always in the right direction.

The writer has watched them after a tree has come crashing down. Within a few moments they are at work trimming off the upper branches. This is the operation now in order in providing the winter larder. The branches are towed to the house, masses of them are imbedded in the mud at the bottom, whence an island of brush soon rises for a distance of twenty feet or more. This is the winter larder. In mild weather, when a hole can be kept open in the ice, the branches on the surface are cleared of the bark forage. When the stream is solidly frozen over, the beavers fare equally well from masses of browse immediately accessible by diving from the underwater entrance of the house.

There is other autumn work besides the construction of the larder. This consists of many trips with mud; for the house is thoroughly plastered each fall and thus rendered wind and cold proof.

Thus does the beaver perform marvelous feats without training or inducement from man; therefore, we may place this wonderful creature in a class quite by itself.

Another beaver characteristic is well worth mention. Many of our animal friends, while thriving as captives, live happily enough as long as their food is regularly supplied and their various wants attended to. If they escape, after a few years away from their native wilds, they wander aimlessly and timidly and are actually in danger of starving. Not so the beaver. The writer remembers the escape of several specimens from the New York Zoölogical Park. It was not many days before we had news of them. Much to our horror we discovered that these animals had not wasted a single night, but, following a stream into the Botanical Gardens which they had discovered after covering nearly a mile of overland journey and crossing a broad boulevard, they at once started the construction of a shelter by cutting some very choice trees. In the meantime, so as not to be without cover, they had taken up temporary abode in a large drain pipe, the entrances of which they had endeavored to disguise completely by cuttings from some decorative shrubbery.

Before closing the story of our most interesting North American animal it should be mentioned that while the beaver was once a resident of a great part of the United States, its existence has been greatly menaced by the beauty and value of its fur. It yet occurs, but sparingly, from the Rio Grande throughout the Rocky Mountain region, in the Sierra Nevada and Cascade region, northward through Canada and eastward to northern New England. A few colonies, now thoroughly protected, occur in Massachusetts, Pennsylvania, and New York.

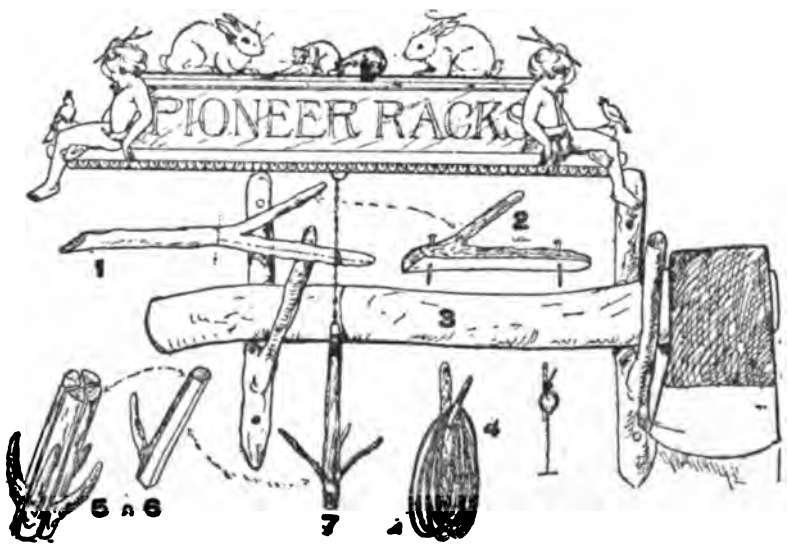
Backwoods Stunts

By Dan Beard

THE forests and wilderness are infested with "varmints"; varmint means any sort of a creature which makes a nuisance of itself. Porcupines will gnaw up anything that has grease on it; they will even chew the grease spots off the floor of one's shack when one is not at home. Wolverines will destroy anything that they can find, even one's camera. They are the real Bolshevist Huns of the wilderness; they believe that no one should own property, and whether it is of any value to them or not they will destroy it. Canadian jays will pick the plums out of one's plum-duff. Red squirrels and flying squirrels will tear up all paper and cloth with which to make nests in one's hats, blankets or coat-pockets; wild mice will do the same, while the western pack rats will carry away every small object in sight.

Therefore, whether one is in the real wilderness where there are wolves, bears, wolverines and pack rats, or the woods near home where there are only foxes, coons, mice and squirrels, one often finds it necessary to boost food or other camp material out of reach of these "varmints." It often happens that the bundle is too heavy for one to lift unaided, or at least to lift with comfort; there are no blocks or tackle in the wilderness for hoisting heavy weights. But there are almost always some saplings growing near one's camp.

A sapling may be bent down (Fig. 8) and to its top a pair of "shears" lashed. The shears are simply two poles crossed at the ends, Figs. 8, 9 and 10. After the top of the birch or sapling is lashed to the shears, Fig. 8, the weight may be tied to the crotch, Fig. 9, and gradually hoisted out of reach of depredators by raising the fork of the shears, Fig. 10. The shears are lashed to the sapling as the cross



sticks of an old-fashioned kite are lashed together, Fig. 11.

In real wilderness work, deer, bear, and even big bull moose are hoisted up in this manner, so that they may be properly butchered. If other goods are cached in this manner the traveler may be reasonably certain of finding them unmolested when he returns to camp.

We are planting memorial forests and are learning to protect and preserve our wild life, both animal and vegetable; therefore, when we are in the wilds, we must be careful not to destroy timber, and if we want to use a tree for a hat-rack, a clothes-rack or a gun-rack, we must devise some method which will not injure the tree. The old-time woodsman did this by striking his ax into the trunk of the tree, thereby making a perpendicular cut. Into the center of this cut he would then drive a blunt peg. The advantage of this lies in the fact that an upright wound on a tree heals readily and leaves practically no scar; therefore, if when one leaves camp the peg is knocked from its place there will be no injury done to the tree.

The blunt peg properly driven into the green wood will fit tightly and make a very secure support for anything the camper may wish to hang there.

In the log cabins of the pioneers there were few tools, and these few tools were consequently highly prized. There was little furniture, and what little there was was home made; the floor of the cabin was clay, pounded hard. The bedstead was made by boring holes in the logs of the cabin for the side poles of the bunk, the other ends of which rested on stakes driven in the ground of which the floor was composed. The bed answered for a settee or lounge also, and there were no chairs.

There was no means for obtaining window sashes or glass in the wilderness, so the window opening was covered with greased paper, when that was obtainable, or the thin, semitransparent skin of some animal, which allowed the light to filter through it.

There were no closets or tool chests. The pioneer's rifle had a long octagonal barrel, that is, the rifle had a barrel shaped like a lead pencil, which was forty-eight inches long. The wooden stock reached to the end of the barrel and had brass thimbles to hold the ramrod or scouring stick; a brass-covered grease and patch box ornamented the butt. This gun rested on the Pioneer Hooks over the fireplace or over the door, where it was handy and ever ready for the buckskin-clad owners to grab in time of alarm. These same Pioneer Hooks, Fig. 3, make a good rack for your crowbar, ax or any other long-handled tool.

To make the pioneer hook or gun-rack select a branch with a good fork to it, Fig. 1, cut it at the dotted lines into the form shown by Fig. 2, then nail it to the wall, as is the one with the ax resting on it, Fig. 3.

This pioneer rack is still used by the backswoodmen to support their rifles, axes and other tools, or as a hook for clothes. Fig. 4 shows the same thing on which is hung a coil of rope.

The Grapple Hook is not made by cutting one stick into four parts, as you might suppose by a glance at Fig. 5, but by neatly fitting four separate sticks, Fig. 6, together and then lashing their ends with rawhide, root, fiber, twine or wire, as in Fig. 7.

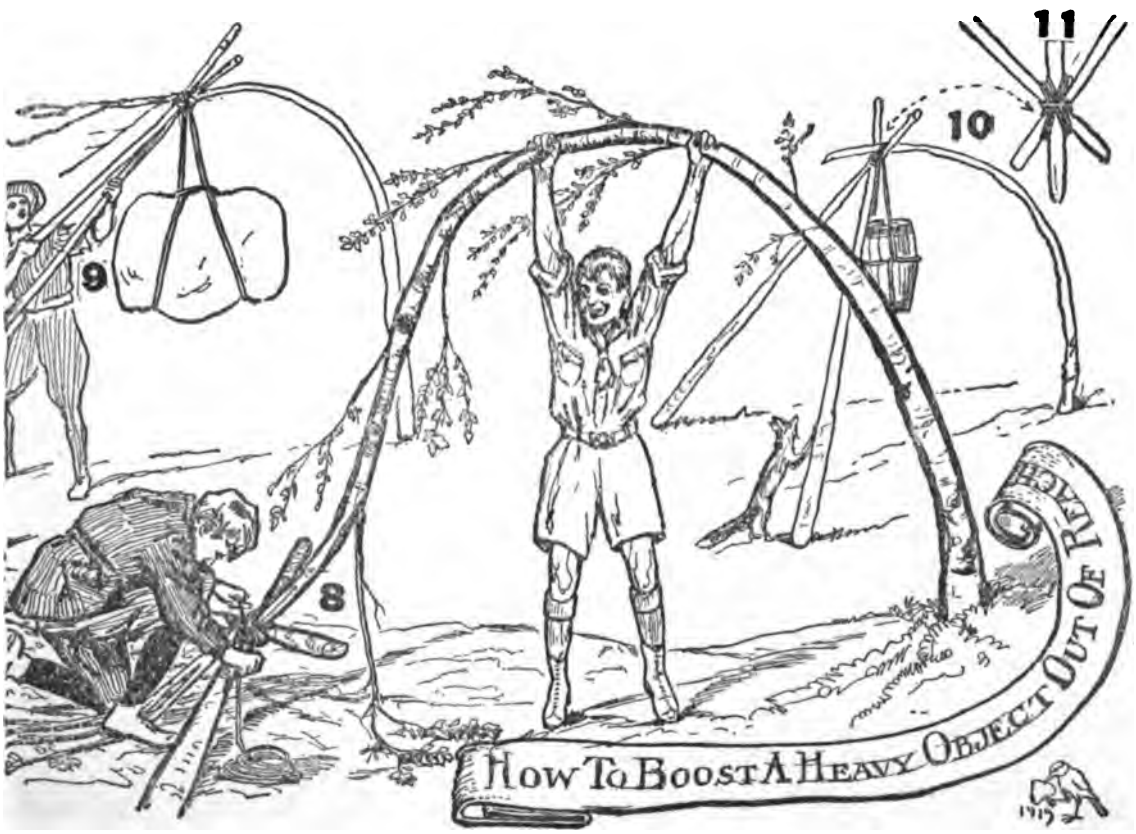
The Grapple is very useful suspended from the ceiling of your shack or tent, because on it such objects as lanterns may be handily hung. It also makes a good clothes-rack.

Near the Alley Pond, back of Flushing, Long Island, the Boy Scouts have made some exceedingly neat and workmanlike camps, but other boys, whom we trust are not scouts, have tried to imitate these camps, and in so doing have "chewed"

down some small trees, leaving their ragged stumps standing several feet above the ground as monuments to the inefficiency, carelessness and Hun attitude of mind of the builders.

You boys know that the Chief loves you, is proud of you, and that he will back you against any crowd of boys in the world, therefore if you love him do not disfigure the woods and forests. Every unnecessary cut you make upon a growing tree hurts him almost as much as if you hacked the limbs of his own body. He wants you boys, and men, too, to learn to love the trees, to love the woods and to treat all living things with the same kindness whether they be vegetable or animal, love all things in God's world.

Do not misunderstand him; when it is necessary to cut down a tree, cut it down in a workmanlike manner; when it is necessary to clear land, clear it in a thorough way; but, unless it is necessary, destroy neither animal nor vegetable life, if you would be a true scout, a worthy son of Daniel Boone, a friend of Buffalo Bill, a follower of John Burroughs and John Muir, and an admirer of Theodore Roosevelt. The truth of it is, Scouts, we want to be everything that a Hun is not, and then we will be real, genuine Americans and simon-pure scouts.



Codfish Possibilities

By Wilbur S. Boyer

Illustrated by Frank J. Rigney

DOWN the main street of historic Ticonderoga sauntered Johnnie Kelly, hand in pockets, and on his lips the whistled refrain of "K-K-K-Katy." Careless and happy was the youthful choreboy, for it was Saturday, he had an afternoon off, and he was going to meet the foreman of the Ticonderoga Foundry, who had promised to take him for a ride in the speedboat, *J. E. M.*

He was passing the Bee Hive restaurant when the swing doors opened with a vicious bang and out shot the familiar spidery figure of his friend, the Lime-juicer, alias the Kaiser's double, alias the Statistical Bummer. An energetic piece of footgear, army model, followed—in fact, assisted—part way at the height of the hobo's center of gravity, then dropped back within the portal while the swing-doors slammed to.

The tramp picked himself up from the gutter and without a word or a glance back strode off down the street with the dignity of a hook-and-ladder captain on parade. Johnnie followed with an anticipatory grin, "K-K-K-Katy" quite forgotten. Not until the figure ahead turned off into a side street and lost some of its haughty bearing did the freckled-faced follower hasten to catch up.

"Avast, me hearty!" cried Johnnie, jovially, "what port are you bound to?"

The lime-juicer turned his gaze neither to right nor left, but kept on at a pace that Johnnie had difficulty in maintaining.

"You was a witness, Mr. Kelly, and can prove I didn't give way to the murderous intentions in my heart. I jest got out of



And dash my top-lights if I didn't see a whoppin' big codfish make a grab for it

the town's free hotel to-day—ten days the judge compelled them to board me—and gets a job as pot-wrestler—K. P.—in the Bee Hive. I works all mornin', feasting my smeller on steaks and chops and et ceteras; and when it come time for mess what does the guy hand out but six codfish balls—*codfish* balls, Mr. Kelly—*Codfish balls!*"

"What's wrong with codfish balls?" demanded Johnnie testily.

"I sees red for a minute, Mr. Kelly," proceeded the narrator, ignoring the question. "I ups with one o' them nefarious globes and lets drive at the boss's scowlin' visage. He pops his head behind the butter cutter and the big feller at the coffee tank ketches it right square in the middle of a yawn and muffs it like a bush-leaguer.

"I see if I stay there my turrible temper was liable to earn me free board for life, so I throwed up the job immediate and come out. . . . You was a witness, Mr. Kelly, that I come out a pacifist."

"Sure, you was," admitted Johnnie. "But . . . codfish?"

"Mr. Kelly," said the hobo, placing a hand familiarly on his companion's shoulder, "if we can find a convenient club-room in the great outdoors where two free-born American citizens can hold converse, I'll elucidate to you the mystery of my undying hatred for the sacred codfish."

"I don't suppose you are lookin' for an interduction to a friend of mine," returned Johnnie, who, boylike, was ever ready for a yarn, "so if you'll jist hang around till I run over to the foundry, I'll let J. E. M. know I'm in town and then, while I'm waitin' for him, we'll find a corner and you kin talk fish."

"You're right. I don't feel socially inclined toward new-hatched, unfledged comrades, as Shakespeare says; so I'll lay low and see you later."

Johnnie found the foreman busy winding up work for the Saturday half-holiday.

"Forty minutes more, Red," said the man briskly. "Here. I've had a snack put up for us to eat when the wind on the lake makes us hungry—two packages. You mind this one. It's a special little treat for myself that I got a longing for this morning. I'll meet you at the boathouse in just fifty minutes."

With the package under his arm, Johnnie joined his friend the tramp.

"Come on," said the boy. "J. E. M.'s boathouse is up on Ti Creek."

"J. E. M.?"

"Yep. He calls his boat by his own initials; so I call him by the name of his boat. There's soft cushions in the launch, and you can skip out around the outer end and back along the string-piece to the shore when we see J. E. M. coming, if you don't care to meet him."

"Clever young gentleman," voted his companion, sizing up the package under Johnnie's arm. "And what might your burden be?"

Johnnie ingenuously explained.

"Thoughtful J. E. M.," declared the knight of the road. "It's such preparedness that brings him success, I have no doubt."

The conversation related to everything except codfish until this oddly assorted pair slipped unobtrusively into the boathouse and settled back comfortably into the soft-cushioned seats of the *J. E. M.*

"Nifty little craft," admitted the wayfarer; "reminds me of the bark *Phœnix*—no, she wasn't a bark, she was a ship. This craft is everything that the *Phœnix* wasn't. They dug the old corpse out of the graveyard at St. George, Bermuda, and patched her up when Heinie got overindustrious with his U-boats. Two thousand one hundred and fifty-five tons, two hundred and sixty-four feet in length and built at Bath, Maine, back in the eighties. Single to'gallant s'ils and no stays'ils. Fo'c's'il with

sixteen bunks where there was room for ten. Then there was the cap'n, two mates, bo'sun, carpenter, cook, and a steward.

"We cleared from St. John's, New Brunswick—'bout 45° N., 66° W.—for Gibraltar with a cargo of dried codfish. Cap'n Weatherbee was a simple smilin' old dumplin' jist saturated with the milk o' human kindness. Talk about grub? There was plenty of salt-horse and old junk, stirabout with plenty o' long-tailed sugar —that's molasses—; there was dog's body and dandy funk, duff twice a week and canned Willie on Sundays; a Liverpool hookpot o' black coffee every mornin', and tea at night—o' course, you could of saw the anchor in ten fathom of that tea, but it was good to soften the pantiles—hard biscuit.

"When you resurrect an old hooker like the *Phœnix,* it's temptin' Providence. She was past redemption. We crawled along into the Gulf Stream and struck a gale that kept us hove to under reefed tops'ils and fores'il for seven days. Hardly was we out o' that one before another come along. Foretops'il whipped to ribbons. Five more days fightin' that. Nothin' went right with the old resurrected ghost of a hulk after that; she jest got nasty and sulked.

"First thing you know, old man Weatherbee comes along lookin' worried. Seems we wasn't overloaded with pervisions—bein' it was war times, you know —and we'd been livin' pretty prodigal under the lavish hand o' that good-natured old goat of a master.

" 'Men,' says he to us all, 'we've got to get this cargo across as long as there's a plank to float on,' says he—or words to that effect—'but we can't do it on empty stomachs. I have a plan to stretch out our stock of eatables without inconvenience, and I jest got to take you all into my confidence,' says he. 'Here we are loaded down to the Plimsoll mark with one of nature's greatest foods. In my lib'ary on board here I've found this little book that's going to be a boon to us sore-pressed mariners. It's called "Codfish Possibilities." From now on the codfish will do its bit to win the war. To-night I shall introduce you to codfish en casserole,' says he, 'and I know you'll be pleased to hear that I myself intend to prepare the succulent dish.'

"That sounded good; but now I'd like to meet Cassy some dark night and tell her what I think of her rôle.

"Once the old man got into the galley, things outside stopped stock still. The old tub was doin' bad enough before; but now seems like the Cap'n took no more interest in navigation—didn't care if we never got to Gibraltar—jest went daffy over 'Codfish Possibilities.'

"We got food for the stomach and food for the mind. He serves up baked dried cod with hard-bread crumbs, chopped salt pork, marjoram, thyme, and a suspicion of onion; and he hauls out 'Codfish Possibilities' and reads with beamin' face how there's twenty-five genera and one hundred and forty species of codfish and that they're a deep water fish, bein' caught in twenty to seventy fathom—some as deep as three hundred. Some one managed to steer him away for that meal, but after codfish balls, creamed codfish, codfish cakes, and codfish chowder, he can't stand to see us so ignorant; so he pipes all hands and reads how the largest cod ever caught was two hundred and eleven and a half pounds and over six feet long off Massachusetts in May, 1895. From a hundred to hundred seventy-five pounds has been recorded, but seventy-five is not common. The average off the New England coast is thirty-five pounds; Georges Bank, twenty-five; Grand Bank, twenty.

"He follows this up next time with codfish salad; and then in regular order comes codfish with rice, codfish with macaroni,

codfish soup, steamed codfish with lime-juice sauce, codfish with saffron and raisins, and codfish that its own grandmother would have disowned. And that old bug never repeated himself once—give him credit, he was long on novelties. But it began to be annoying. Every time you looked a shipmate in the face you was sure



"I have a plan to stretch out our stock of eatables without inconvenience"

he had a codfish mouth; and if you whispered, 'Poison,' which the old nut said was French for fish, only they spell it with two S's, you was likely to be presented with a black eye.

"It was the day that he sprung 'Salad de poisson à la Weatherbee,' which was codfish, gelatine, and curry sauce, mainly, we took matters in hand. Cap'n, having finished his own grub, come settin' around with 'Codfish Possibilities.' And he starts in to entertain us. A twenty-one pound cod has two million seven hundred thousand eggs, each from one-nineteenth to one-seventeenth of an inch in diameter. It would take three hundred and thirty-seven thousand to make a quart. If all the eggs in a seventy-five pound cod got hatched and growed up, the ocean would soon be so packed with codfish there wouldn't be room enough left to drown a cat. Some of us felt like we was gettin' scales by this time.

"I see trouble was comin', but there was no stoppin' that dunderhead. He reads right on, eyes a-sparkling, voice monotonous like a double-reefed snore. The cod is omnivorous — eats everything — they've

found in its stomach scissors, oil-cans, finger-rings, rocks, potato parings, rubber dolls, pieces of clothing, the heel of a boot and a corn-cob pipe. In winter months there is a marked movement of large bodies of cod to the New England and Middle Atlantic coasts, and important fisheries are then carried on.

"When he got that far, something happened. Perhaps it was mutiny, but we all riz right up, hustled the old codger out o' the foc's'il, and chased him aft. I snatches 'Codfish Possibilities' out of his hand. The mate had jest taken noon observations and gives our persition as 40° 42′ 42″ N., 74° W. when I ups and heaves that book overboard. And, dash my top-lights, if I didn't see a whoppin' big codfish make a grab for that cook-book and swallow it whole!"

"Cap'n was never the same after that —grieved like a doting parent. He took to makin' up receipts out of his own head, and there warn't any good material in there. We got so we didn't care what happened. We jest let the old tub wallow along any old way. She begun a-shipping water, and first thing you know we was leakin' like an old-timer at an experience meetin'. You see the water swelled up our load o' dry codfish and it burst open the seams and we begun to settle. We fired rockets until they was all gone, but no one paid any attention to us, maybe suspectin' us a U-boat in disguise.

"Then one day the *Phœnix* begin sinking gradual by the bow. We all took to the cabin roof and lashed ourselves there to keep from being washed overboard. Next day the main mast goes over, snap, crack, swish, flop into the combers with a crash like thunder. I'd lost my boots and had to rip up my shirt and tie it around my feet to keep from freezing. Day after day went on, we flying A-G and the flag upside down, and eating nothing but codfish when we could manage to make it palatable, because everything else was under water.

"Bimeby after eighteen days of wreck jest at daylight we see a smudge of smoke on the horizon. Mate sends me up the riggin' with a torch made out of oakum soaked in turpentine. The steamer comes on, drops a lifeboat, which circles under our stern and takes us all off.

"I don't remember anything more until we was on the deck of the *Happy Days*. She was a fishing boat from the Massachusetts section drove off of her grounds by the U-boat scare along the coast. They give us a warm bath and we slept. About four o'clock we got some hot soup and went to sleep again.

"When we woke up next time, the cook of the *Happy Days* come in to give us our first square meal in eighteen days—not to mention codfish.

" 'Wish we could offer up better fare, maties,' he apologizes, 'but we've been short on rations for some time. What's here there's plenty of,' says he, 'and fixed some stylish,' says he, 'thanks to a bit o' luck we had some days ago,' says he.

" 'What luck?' says I, beginning to feel a suspicious queerness in my food locker.

" 'It was in latitude 40° 42′ 42″ North, longitude 74° West,' says he, 'when we hauls in a hundred pounder that put up a rousin' fight. When we cut that cod open we found a plug o' tobacco and a pamphlet called "Codfish Possibilities." This dish I'm servin',' says he, 'is took from that delightful book,' says he. 'It's called codfish en casserole.'

"I guess, Mr. Kelly, that I swooned, because I don't remember what became of the cook. I never see him again. I think maybe some o' my shipmates might a been a bit peeved and spoke cross to him, and he got insulted, or maybe they only jest drowned him. But you can see, Mr. Kelly, how the main guy in the Bee Hive restaurant in Ticonderoga got off lucky. It's a

wonder I didn't tie him into a reef-knot. Tell him next time you see him. I'd do it myself, but I'm afraid I couldn't control my turrible temper long enough to be perlite."

"Say," began Johnnie, wrinkling his nose thoughtfully, "didn't you say codfish was caught down thirty to seventy fathoms?"

"I did."

"And they're only caught off certain banks?"

"Correct."

"Well, how did this big fellow happen to be way off to 40° 42′ 42″ North, 74° West and rise up jest in time to swallow the book?"

"You're a discernin' young man," replied the hobo. "There's always a bold, adventurous spirit in all communities, and that big stiff of a cod was one. If he'd stayed home with his family he'd probably be alive to-day. . . . And now I see your friend a-coming, so I'd better be moseying along. Good-day, Mr. Kelly, and much obliged."

"You ain't obliged to me for anything," replied Johnnie.

"Then thank your friend for his hospitality. J. E. M. is O. K.—boat and owner."

He faded around the outer end of the boat-house and out of sight while Johnnie sat and chuckled:

"Hello there, J. E. M.," cried the boy as the foreman came in.

"Hello, Red," returned his friend. "Here's my parcel of lunch. Catch it. Where did you put the other one?"

Johnnie looked on the seat beside him. The package was not there. He looked on the floor.

"I've jest been entertained by a friend of mine," he explained with a long face, "and douse my toplights. but I bet he's off somewheres this very minute stuffin' himself with your special treat! I'm awful sorry."

J. E. M. dismissed the matter with a wave of the hand.

"He's welcome," said he. "I've been wondering after all just how they'd taste cold."

"What was they?" demanded Johnnie.

"Codfish balls. I got them in the Bee Hive this morning."

Johnnie fell back in the cushioned seat, kicked up his heels, and shouted with glee.

"The poor fish!" he roared.

* * *

NOTE:—We are inclined to think that the lime-juicer, purposely or otherwise, mixed his geography. The latitude and longitude given is the position of New York City Hall.—*The Editor.*

Stone Soup

Collect as many stones as there are guests, smooth round pebbles nearly white as possible. They should be about the size of an egg. Wash them thoroughly, place them in the kettle, bring to a boil.

Hunt around the camp until you find a stray onion. Kill and dress it, and slice it into the stone soup stock. You may find a parsnip or carrot. Cut this up into small cubes and add.

If there were some potatoes left over from yesterday dinner or if there were a few that the cook thought too small to bake, cut those and put them in. Nearly every chef has a can of tomatoes, use this without opening. The equivalent of one tomato will add to the flavor of the soup. Shake the tree above the soup pot or stand kettle in high grass until it has a slightly meaty flavor.

After it has boiled twenty minutes, sprinkle the stones with salt, add a little pepper, and a bit of worcestershire sauce will increase the flavor.

Boone, the Torch Bearer

By William Heyliger

THE world to-day would be a very small place were it not for men who have carried the torch of civilization into far places. An unquenchable fire that burns in their breasts has urged them forth to break paths for their generation. They have penetrated the dark corners of the earth; they have, in many cases, paid forfeit with their lives. Columbus, Magellan, Livingstone—all were of this lion's breed. So, too, was Daniel Boone.

There was never a day, for almost fifteen years, when Boone's life was not in danger. No other man ever fought civilization's fight against such bitter odds. He led the first white settlers into Kentucky. His eldest son was killed on the march. Other men gave up and returned to civilization, but Boone pressed on. He founded Boonesboro, and for years never knew what moment the war whoop of the savage would bring him from his sleep. His daughter was kidnapped by the Indians; another son was slain from ambush. But Boone, with that flame of creation burning in his breast, never once turned aside. Almost single-handed he wrested the great state of Kentucky from the Indians. Almost single-handed he planted the banner of human advancement five hundred miles beyond the then farthest frontier.

It is said of Boone that he knew not fear. He was born in Pennsylvania, at a time when it was common for peaceful Indians to come to house doors and seek shelter for the night. At the age of ten years he thought nothing of spending the day in a forest alone and sleeping beside a camp-fire. His father migrated to North Carolina when he was sixteen. Five years later the Seven Years' Indian war broke out and Boone, just entering manhood, shouldered a rifle and marched away. He was with Braddock when that English general was ambushed and was one of the few to escape. He was a better woodsman than the Indians themselves. Years later, during another Indian war, he was sent out to warn scattered parties and safely traveled eight hundred miles through woods that were thickly peopled with the savages.

In 1767 John Finley came to the little settlement in which Boone lived with his family and told glowing tales of a country of marvelous beauty he had discovered. That country was Kentucky. The soul of Boone was stirred and two years later he and five others set out to inspect this new land. In June, 1769, he had his first view of the state that was to go down into history as "the dark and bloody ground." He stayed there until December, when he was captured by the Indians. Seven days later he escaped; and when he and one companion returned to camp, the four men who had come with him from North Carolina had disappeared. He never saw them again.

But though tragedy marked his first entrance into Kentucky, he saw the importance of this land. A Colonel Henderson bought all of Kentucky from the Indians, and Boone led the first band that set out to colonize this fertile territory. It was on this journey that his son was killed. In sorrow and in fear many of the party

turned back, and for a while Boone was forced to halt. But ultimately he went on and at Boonesville he gathered his people and erected a fort. Later he brought on his wife and children. Three other settlements sprang up near by. In 1775, one full year before the Revolution, Boone and other pioneers of these settlements, meeting as a legislature, promulgated the doctrine that all power is originally in the people, the identical principle of government on which the United States of America is built.

Then came the Revolution. The Indians were armed by the British, and there was scarcely a day when bullets did not fall upon the fort. Three hundred of the pioneers, dismayed, retreated back across the mountains. Boone, with twenty-two armed men, remained to hold his ground against thousands of savages. "Now," he had written months before, "is the time to hold the country while we are in it." And he held it all through a winter that must have taxed even his iron nerve. Battle succeeded battle. On one occasion he and six others were shot down. Still later, when driven to a salt lick to secure salt for the imprisoned garrison, he and twenty-three of his men were captured by the Indians.

Instead of being put to death he was adopted by the tribe. His hair was pulled out until only a scalp lock remained, and his face was painted. For months he roamed about the country with his captors, going as far north as Detroit. Coming back to Kentucky, he found the savages gathering, and learned that five hundred of them, armed with muskets and led by white officers, were going to attack the fort at Boonesboro, one hundred and sixty miles away. Early one morning he made a break for liberty. It took him four days to cover the one hundred and sixty miles, and during that time he ate but one meal. Tottering and almost famished, he arrived outside the stockade.

He found the fort in a bad state of defense. In his absence discipline had relaxed. He at once took charge and when the Indians arrived Boonesboro was ready. In August the savages appeared, four hundred and fifty-four in number. Boone's force numbered fifty men. The odds were almost ten to one. For nine days and nights the battle raged, and then, demoralized, the Indians withdrew. They never attacked Boonesboro again. The fight for Kentucky was virtually won.

And with Kentucky won Boone found that, by one of the twists of the law, the plot of ground he thought was his was not his at all. Almost like a penniless outcast he moved to Virginia, but when fresh tales came to him of land to the west of the Mississippi, then called Louisiana, his sixty-one years did not deter him from risking a fresh start. In 1795 he established himself near the present city of St. Louis and took what he thought was a deed to land; but in 1803, when this territory passed from Spain to the United States, he found this claim worthless.

But now the American people were awaking to a realization of what Boone's leadership in Kentucky had meant to the nation. Congress granted him eight hundred and fifty acres of land. There in the west, free from want, he passed his last days. Twenty-five years after his death his remains were brought back to Kentucky. In the land he gave to civilization, he sleeps, this man who carried the torch of civilization among a savage people and bared his chest to the shock of battle that its flame might not be extinguished.

Hip! Hip!! Hurrah!!! Boy Scouts

It is fine to have the boys of the country organized for the purposes the Boy Scouts represent, and, whenever I see a group of them, I am proud of their manliness and feel cheered by the knowledge of what their organization represents.

PRESIDENT WOODROW WILSON.

The Boy Scout Movement is of peculiar importance to the whole country. It has already done much good, and it will do far more, for it is in its essence a practical scheme through which to impart a proper standard of ethical conduct, proper standards of fair play and consideration for others, and courage and decency, to boys who have never been reached and never will be reached by the ordinary type of preaching, lay or clerical. . . . I heartily wish all good luck to the movement.

THEODORE ROOSEVELT.

Boys, you and I are members of the same great organization and I am very proud of my membership, as I am sure you are. You have demonstrated that you are prepared, and efficiently prepared, to render aid to others who may be greatly in need of assistance. This is the great underlying purpose of the Boy Scouts of America.

WILLIAM HOWARD TAFT.

I have enthusiastically approved the Boy Scouts of America from the first; I believe that it inculcates manly virtues and high principles in boys.

NEWTON D. BAKER,
Secretary of War.

The Boy Scout Organization has proved itself of especial value not only in the useful training it gives its members, but in performing vital services in various ways in conserving and increasing the resources of the nation.

JOSEPHUS DANIELS,
Secretary of Navy.

The Treasury Department is deeply appreciative of the magnificent coöperation that the Boy Scouts of America have given in Liberty Loan and War Savings campaigns.

CARTER GLASS,
Former Secretary of Treasury.

The Boy Scouts of America have rendered valuable service to the Nation in a great many directions, and I desire to congratulate them upon the fine record they have made.

D. F. HOUSTON,
Former Secretary of Agriculture.

Both Boy Scouts and the country will be better off when they have attained manhood, by reason of the physical, mental and character training which they acquire through Scouting.

A. S. BURLESON,
Postmaster-General.

Hip! Hip!! Hurrah!!! Boys Scouts

The spirit of usefulness and service shown by the Boy Scouts throughout the country calls forth my heartiest appreciation.

WILLIAM C. REDFIELD,
Former Secretary of Commerce.

I have been deeply impressed and touched by the splendid spirit of coöperation and the tireless energy of the Boy Scouts. Each year the Boy Scout movement is turning out thousands of better boys and creating the finest types of future American patriots.

WILLIAM G. MCADOO,
Former Secretary of Treasury.

The Boy Scout Movement has my unqualified approval. Honest and faithful service in the Boy Scouts develops those manly qualities that fit our boys for the more serious duties of citizens and soldiers.

GENERAL JOHN J. PERSHING.

The Boy Scout movement tends to make a self-reliant boy,—one capable of taking care of himself in the open.

LEONARD WOOD,
Major General and Former Chief of Staff.

I believe the Scout Oath and the training of our boys in Boy Scout organizations is an incentive to the highest aspirations and an excellent education for their future duties as citizens.

HUGH L. SCOTT,
Major General and Former Chief of Staff.

The Boy Scout movement should be helped forward by every man and woman in America. It would be difficult to imagine any form of obligation more likely to impress a boy seriously than that in which he promises to do his duty to God and to his country.

ARTHUR CAPPER,
U. S. Senator, Kansas.

There has been no single movement in our nation that has been of greater advantage to our national life than that represented by the Boy Scouts of America. It has started at the very foundation of our citizenship and has trained the boys at a time when their minds were in the best condition to receive it. The training given has been very wisely and excellently planned and developed. On many occasions I have noted with pride the manner in which the Boy Scouts have acted, and it speaks more eloquently than words of the security of the future of our United States.

CALVIN COOLIDGE,
Governor of Massachusetts.

I know of no more wholesome movement with infinite possibility that has been initiated in recent years than the Boy Scout Movement. It seeks to turn the abounding energy of youth into helpful and manly activities. It recognizes that the suppression of that energy, which has been too often practiced, means its reappearance in dangerous if not vicious tendencies. It is a great conservation.

FRANK O. LOWDEN,
Governor of Illinois.

I am pleased to have an opportunity of conveying to you the expression of the brotherly feelings of Belgian Boy Scouts toward the Boy Scouts of America, and to express to you my best wishes for the prosperity of your great organization.

LEOPOLD DE BELGIQUE,
Crown Prince of Belgium.

The Boy Scouts of America is, to my mind, one of the finest and most beneficial movements of the kind ever inaugurated and I cannot speak too highly of the wonderful work performed by the boys during the recent war.

WM. C. SPROUL,
Governor of Pennsylvania.

Hip! Hip!! Hurrah!!! Boy Scouts

Such a movement (Boy Scouts of America) is deserving of the highest commendation. His Holiness therefore wishes it every success and gladly bestows the Apostolic Blessing on all those who further the Catholic extension of the Scout movement under the auspices of the ecclesiastical authorities.

With best wishes, I remain,

J. CARD. GASPARRI,
Sec'y of State to His Holiness, Pope Benedict XV.

Value your training as Scouts, for the more you value it, the greater will be your own value to your country and your friends.

EDWARD,
Prince of Wales.

I feel certain Boy Scouts will set an example of patriotism and devotion to duty for future generations of American boys.

GENERAL, SIR DOUGLAS HAIG.

Greetings from Prince Edward

RECENTLY a real and very much alive Prince with plenty of pep and personality, His Royal Highness Edward, Prince of Wales, made a brief stay in the United States

One of the last things the Prince did before sailing out of New York harbor was to land at 86th Street for the purpose of reviewing a gathering of Boy Scouts, who were hastily mobilized in response to a request of the Prince himself, who is exceedingly interested in the movement and is Chief Scout of the Boy Scouts of Wales.

His Royal Highness was accompanied by his staff and was received by a committee representing the Boy Scouts, consisting of Colin H. Livingstone, President; Mortimer L. Schiff, Vice-President; Daniel Carter Beard, National Scout Commissioner; Lewis B. Gawtry, President of Manhattan Council; Major Lorillard Spencer, Commissioner from Manhattan and marshal of the Boy Scout demonstration; and the Chief Scout Executive.

As the scouts lined up in a hollow square, with the Naval band of the *U. S. S. Recruit* at the open end of the square, the Prince approached the Boy Scouts followed by his staff and the Boy Scout committee. The band played eight bars of "God Save the King" followed by eight bars of "The Star Spangled Banner." The Prince and the scouts stood at salute while the band played. The Prince then inspected the entire line of Boy Scouts.

Through Mr. Livingstone, the Prince left this message:

"I have been asked to send you a message and I am very glad to do so, for I have just had the honor of inspecting a fine parade of scouts here in New York. I see that American Scouts are a credit to their scout training.

"I wish that my visit to your splendid country had been longer and that I had had the chance of seeing more American Scouts and Guides; but that must wait until my next visit.

"Meanwhile I wish to say one thing to you. Value your training as scouts and guides, for the more you value it, the greater will be your own value to your country and your friends. Never hunt with yourselves, but hunt with the pack. Put your country always first, and, above all things, be good Americans. The better Americans you are the better friends you will be to your brother scouts and sister guides of the British Empire.

"EDWARD P."



Salute the Boy Scouts

Slim, trim figure of dusty hue,
The country snaps its salute to you
Joy-boy, toy-boy,
hobble-de-hoy boy,
Whichever you are, you are tried and true
And your dourest opponent is brought to book
By the bright delight of your Boy Scout look.

Keen, clean face of the embryo man
Above the kerchief which shows your clan,
Sprite-boy, knight-boy,
firm-for-the-right boy,
Conquer the world, as you will and can!
We dip the flag to your world-long file
And the whimsical vim of your Boy Scout smile.

Your alert-curt vigor compels our wonder;
You are molded light, you are molten thunder;
Scout-heart, stout-heart,
loyal-throughout heart,
Sunny step and with great deeps under,
We enter you high on the Honor Scroll—
By the romping pomp of your Boy Scout soul!

By EDMUND VANCE COOKE

Courtesy Newspaper Enterprise Association.

Rounding Up the Man-Eater

By Capt. A. P. Corcoran

Illustrated by Clyde Forsythe

N'GHULU, the Swahili gun-bearer from Mombasa, was lying stupefied on the floor of his hut, too overcome by the potent native palm wine to make any move to assist. At the door his wife, clad in the white shapeless garb of missionary pattern, was standing petrified with horror, unable to move hand or foot, but shrieking like a woman gone insane. And fifty yards away the old man-eater could be seen running in great bounds toward the jungle some half mile off to the north.



His wife, petrified with horror.

From his jaws depended a little black and white bundle that was no less than N'Ghulu's son.

For some months now the lion had been preying on Masindi, carrying off natives or their live stock to supply his daily food. Success was making him bolder. This time he had not waited, as was his wont, until nightfall. Instead he had come sneaking to the town in the light of day, and had seen the eighteen-months old child playing alone outside his home. With one leap the brute had alighted close to the baby, opening his jaws to snatch one mighty bite. But he had miscalculated somehow, and his mouth had met only the rolls of loin cloth that swathed the boy's hips. Before he could bite again there had come shriek on shriek, loud, terrifying, terror-stricken. Scenting danger, the lion had turned tail,

taking his prey with him out over the expanding plain.

The Uganda Troop, returning from a day's outing, heard the hysterical cries.

"Holy Mackerel!" exclaimed Bradley Marshall, "some guy's sure got the toothache bad."

But Jim Meade's eyes, which just then had been scanning the plain away on their left, caught sight of the lion whose springing stride had now descended to a shamble.

"Old Hungry-Always, I should say myself," he announced, using their favorite name for the man-eater. "Wonder if he's got another baby? Let's make for the noise."

"Frightened one of them into fits, more likely," replied his patrol leader.

Nevertheless the troop put spurs to their horses, covering the few remaining hundred yards to Masindi in a quick, easy, even gallop.

Though not one of the troop had seen the tiny bundle in the lion's mouth, few doubted his identity. His raids were now a by-word in Masindi. Many natives claimed to have seen him, but not a single one had sought him. He seemed to have reduced them to a state of paralyzed fear. Their tales of him in consequence had been blood-curdling. He was over ten feet long, they said. He had a bushy, dark-brown mane that covered neck and head, stretching even down his powerful spine. And his tail stood out yards long, ending in the "horn," round which curled a coarse brush of hair. A dread beast, the mere sight of which robbed the arms of their strength and reduced the legs to such quivering pulp that they were unable to remove one's body! A bewitched beast who could render one harmless and helpless, while he himself removed one's cattle or kids or even one's family, if such was his fancy!

As the boys rode up to N'Ghulu's hut, whence still echoed the shrieks of his wife, redoubled by those of her sympathetic neighbors, they could see a crowd of natives gathered to hear the news. Wide-eyed, all of them, staring with ashen faces of fear after the beast which could now be seen moving slowly but still steadily toward the protecting shelter of the jungle!

"What's the row?" shouted Meade, as he came within earshot.

At his words the mother, guessing that here might be help, rushed forward, arms raised in supplication, and caught the scout leader by the knee. Between her moans and sobs Meade could just distinguish the words "simba," "mtoto," which, translated, mean "lion" and "child."

"Crackey!" cried the scout. "He's got the kid."

Low whistles, ejaculations of sympathy greeted this announcement. They all knew N'Ghulu's boy. Hadn't they played with him often, when they came to fetch his father, the best gun-bearer in Masindi?

"But where's N'Ghulu?" demanded Meade in pidgin Swahili.

Before the woman could answer, her husband appeared in the house doorway. Like a man awakened from a nightmare he gazed around at the group, his eyes dead, his face dazed. He was still in a stupor. Clearly there was no help to be got here.

Meade's eyes sought those of Marshall; then turned to look after the now walking beast. A few hundred yards more, and he would be gone into the jungle.

"I say we get him!" exclaimed Marshall energetically.

"Same here!" cried Meade, and looked around at the troop.

"But it's so late," objected Deschamps, the only Frenchman in the crowd. " 'Twill be dark in another hour. Then——"

"He'll be dead," finished Marshall.

"How about you?" He, too, looked at the rest.

"We're on!" came the answer.

"Only for heaven's sake let's hurry. I'm starved now," put in Reed. "I want a meal."

Without another word the Uganda Troop faced about.

A great spectacular sunset was lighting up the West, toward which the sun, glowing red gold like the heart of a fierce fire, was sinking slowly in a sky of orange tawny. The horses, scenting excitement, tore across the plain, nostrils distended, ears cocked. They needed no spur to make speed. Behind them the boys could hear the encouraging yells of the natives. Before them ambled the lion. The wind was with the troop. He could not get their scent. But presently the swift insistent pounding of the horse hoofs was communicated to him along the vibrating earth. He turned for a second. Just a second, but they could see the black and white bundle still hanging from his mouth. Obviously he was reserving his meal until he got to safety.

"C'mon, scouts," shouted Meade, tearing on ahead. "We'll get him easy."

But with a few mighty leaps the lion vanished into the brushwood before their eyes.

As they approached, a few crushed branches and bruised foliage bore witness to the place where he had entered. But the denseness of the brush and the overhanging branches of trees completely blocked a good distant view. It was of little use to follow in directly. He might have continued due north. He might have veered to east or west. If north, they would come on him pretty soon anyway. This jungle was not more than a mile deep, and beyond it lay a stretch of open country. If east or west, they must head him off, hem him in between two attacking bodies. So argued Meade in his own mind.

His arm shot up as a sign to halt.

"Now, then, Brad, you take half the troop," he ordered, "and circle away on the right. Keep firing a revolver." Each scout had one, for it is a law in Africa that the man who goes into the jungle unarmed cannot look to the government for protection. "The shooting will keep the brute moving," continued Brad. "If you see him, don't aim to kill. You might hit the kid, if the range is not very good. But give three blasts on your whistle. We got to surround him and get the kid alive, if we can."

"You said it," was the reply, as Marshall, with ready precision, led away his troop as directed.

Now on the left, now on the right, revolver shots rang out on the still air, as the Uganda Troop strove to confuse the fleeing man-eater. It was slow going, however, through the jungle. The brush was thick, and the thorn trees too numerous for comfort. The boys were scratched and bruised, as they urged their horses on. An overhanging branch caught Reed across the face and almost swung him out of the saddle. Martin's mount tripped and deposited his rider in some prickly growth.

Presently Marshall's band sighted a small opening in the dim light beneath the trees. They rode to it, and found the dried-out bed of a former shallow stream. They were hesitating which course to take, when a shrill whistle thrice repeated rang out. It came from the opposite side of the old water course. At once they clattered down toward the point whence it came. And now they could see Meade standing in his stirrups and calling through cupped hands that they should dismount. He was pointing to a clump of tall brush and tangled jungle grass which stood on the opposite side of the stream bed, between the two scout troops.

As they dismounted they strained their eyes to see into the jungle, and presently were rewarded by a glimpse of a tawny tail waving angrily amid the green. Meade was still firing at intervals, evidently with the idea of keeping the lion nervously keyed up. But before they could surround his protecting cover of brush he sprang forward and was gone again from view.

"Double!" called the leader.

With a concerted yell of delight the scouts shot forward through the undergrowth. The lion was heading directly north again. Meade's crowd were to the west of him; Marshall's to the east. They could hear a branch crash now and again as he bore down on it in his flight. Occasionally a grunt reached their ears.

"Can't keep up the pace long," Meade told himself. "They never do. They are short-winded."

But the lion kept it up sufficiently long to bathe their bodies with perspiration. And he made it sufficiently hot to have their clothes torn and their hands cut from the reckless speed with which they followed him through the thorns.

And then abruptly there came to their ears a small, shrill cry so woe-begone and terrified that it brought them to a halt.

"Great cats! What's that?" ejaculated Marshall.

"The kid, I should say," replied Reed.

With renewed energy they tore on and came to a circular clearing.

At first they did not notice the small pitiful waif that lay on the earth not far from the man-eater's front paws. They were too fascinated by the sight of the beast himself. Unable to throw off his pursuers by speed, he had decided to turn and face a fight for his life. It was the first time that most of the scouts had seen a lion at bay.

As he stood there in the clear, mild evening light, it seemed as if indeed the native tales of his terrors were scarcely exaggerated. He was a magnificent specimen of his kind. He was fully nine feet long, with a thick, bushy mane that stood out around his head like a great bristling ruff. Perfectly still he stared at them, as they poured in on both sides, Meade and his scouts to the left, Marshall and his to the right. Save for the lashing of his tail he did not move. But with this he continually whipped his flanks from side to side, as if arousing his own fury. And then, abruptly, as they gazed at him, he threw back his mighty head, and the jaws opened to emit a roar that began in a rumble and rolled on, deep and loud, like a long-drawn peal of thunder. Like a faint echo to it the child set up a terrified little wail. The scouts looked at it. How were they to rescue it alive?

It was twelve yards at least to where the lion stood, with the baby lying on the earth almost touching his paws. Not a good range that for a revolver! To kill they must hit directly through the forehead or through the heart or else cut his spine! Suppose they hit and did not kill him? In his fury he might trample the child. Meade's voice rang out, giving orders.

"Don't shoot to kill," he shouted. "Fire along the flanks."

A shot rang out from Marshall's side. The lion took a pace backward and turned toward it. A shot rang out on Meade's side. The beast turned back confused. For some seconds they continued this game of keeping him guessing. It succeeded. He stood there, roaring indignantly at intervals, but undecided as to which man he should rush. Presently Meade's ruse was apparent.

M'Teke appeared at Marshall's side, bearing in his hand a rope which he had fetched from the horses.

"Now, then, Brad," shouted Meade. "Look lively with the rope. You got to

lassoo that kid, and then we get the lion."

"Fine work," replied the American excitedly. "Funny I never thought of that."

And now the scouts' attention was divided between their quarry and their fellow scout. He was deftly whirling the rope into a circle. Soon it was sailing gracefully through thirty-five yards of space, and it landed neatly over the child's body.

"Hold hard now," shouted Meade. "Don't pull in until I tell you."

The lion, at a loss as to the meaning of this maneuver, was looking dazedly at the child. But just then some quick firing on Meade's side brought him around again with a roar.

"Haul away there," shouted Jim.

Marshall quickly and neatly drew the black and white bundle to safety. The child, scenting new terrors, sent up another shrill wail. As if recognizing the sound the lion turned again.

"Now, then, boys. Shoot straight and shoot to kill," shouted Meade, delighted with the success of the ruse.

He had not spoken a moment too soon. Balked of his prey and clear now as to their intention, the great beast was already crouching preparatory to a spring. A shot from Bradley Marshall caught him on the flank. It decided him. With a snarl he faced in that direction. And just then M'Teke's white native dress caught his eye. With a huge bound he plunged toward the black. But that gentleman had already dropped his spear and fled.

Pierre Deschamps, then, stood next in the animal's path. He had been on M'Teke's left, slightly isolated from the others.

"Look out, Froggy," cried the troop in a sudden frenzy of fear. "Run, man! Run!"

But the French boy made no attempt of any kind to move. He stood perfectly still facing the lion, a smoking revolver grasped in his right hand. The spitting, snarling beast had already doubled for the second spring that would bring him on top of one enemy. Back arched, teeth bared, he looked like some gigantic venomous cat, a terrifying sight.

"Froggy's paralyzed with fear," thought Meade, and fired again.

But the only vital spot directly bared to any member of the troop, with the exception of Deschamps, was the spine. Meade had aimed to split it and failed. The lion had already sprung.

And now every scout who was not firing madly in an attempt to kill the beast before it killed one of their troop had his eyes fixed on Pierre. Just as the animal had left the earth they had seen their fellow scout drop his revolver. They did not realize it was empty, and momentarily they were puzzled as to why he had discarded it in order to pick up M'Teke's spear.

"Going to hurl it through the brute's heart," they decided to themselves, and wondered whether at this distance he could aim straight.

But no! Deschamps was fixing the spear in the earth, point upward. The animal was already on him. Like a catapult the lion came. His body hurtled through the air, intent on crushing this small enemy with its weight.

Pierre Deschamps stepped suddenly aside. Almost where he had been stood the spear, pointed, threatening. There was no time nor opportunity for the beast to swerve from his course. His own speed and force decided that.

Down he came. The spear tore through his heart, and then beneath the weight thrown on it, it fell to earth bearing with it the lifeless body of the lion.

As the Uganda Mounted Troop went home that evening to a late dinner, bearing in their ears the benedictions of N'Ghulu's wife and the congratulatory

calls of her neighbors they were singing a new song. It had been composed en route for home by the troop poet, Jack Higgins, and ran as follows:

"This is little Froggy, our own Frenchman,
The greatest lion-killer ever seen.
He doesn't try to shoot;
That just annoys the brute;
So he spears him, as you might a lima bean."

"But my revolver was empty," protested Deschamps. "I've told you so several times."

They were deaf. They escorted him, still singing, to his own home, where his mother, seeing the flushed protesting face of her boy, came out to rescue him from the untender mercies of his companions. When she heard the whole of the tale she turned pale and ran protesting to his father that he must put a stop to these escapades. But his father, putting his hand in his pocket, drew forth some coins —how many does not matter. It was enough to provide treats around for the whole Uganda Troop. Whereat they all started to sing again, and Pierre went home sick of the sound of his nickname, and vowing it was the last time they should eat at his expense.

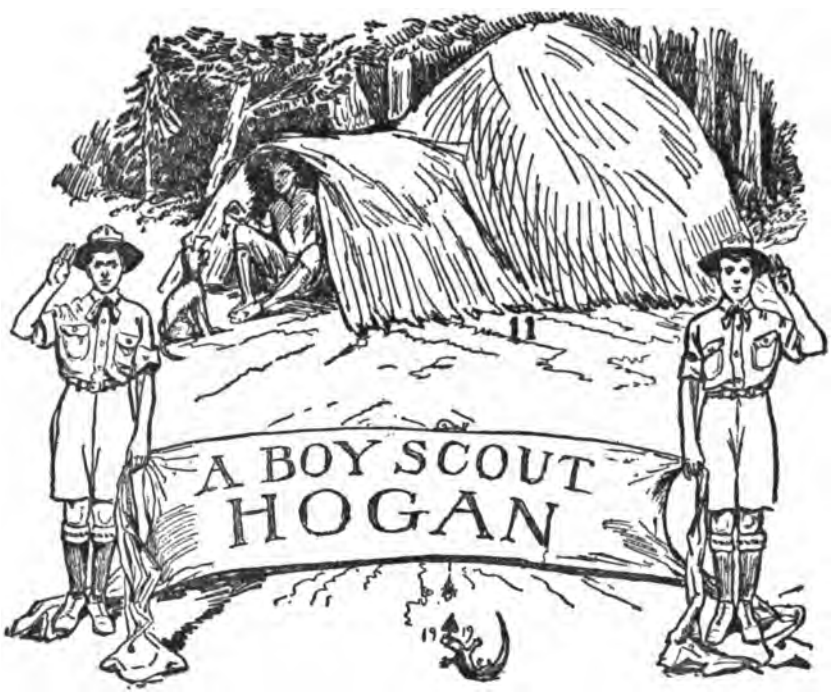
Scout First Aiders

Worth Cooper, Jennings Young and Glenn Hopkins, of Charlotte, N. C., one after another made valiant efforts to save a caddy, not a scout, from drowning. As the scouts came up to the stream they saw the boy struggling frantically. One of them jumped in, but the strong current swept him downstream. The second scout dived in, but after a few moments was seized with cramps and had to struggle for his own life. Then Cooper ran down shore a bit, calculated his distance, jumped in and brought the caddy to shore. Without a moment's delay he ran up to where his fellow scout was struggling with cramps, dived in and rescued him. The third boy signalled back a moment later. He had managed to get out of the current and had reached shore.

John Gruver, Merritt Schenck and Robert Johnson of Bethlehem, Pa., Troop 1, gave efficient first aid service to five persons who were injured when their automobile collided with a trolley car. The scouts were returning from Camp Minsi, N. J., on the car whose trailer hit the automobile. The direction of the first aid work was left to the boys, who applied first aid bandages and tourniquets and refused to pour liquids into unconscious people, and then accompanied the injured persons in the car until they were met by an ambulance.

The Detroit Signal carries this "can't help but be proud of them" report.

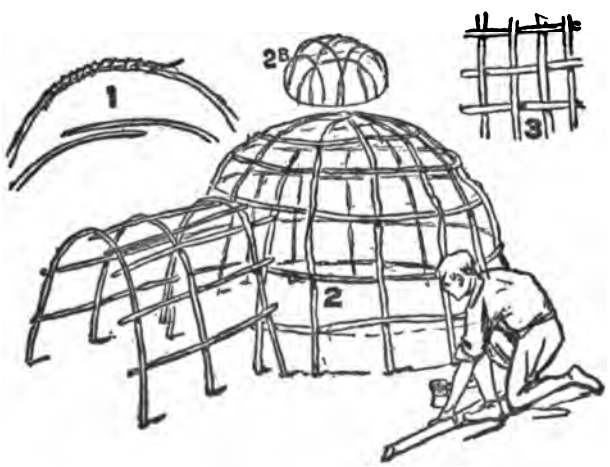
Two Scouts of Troop 4, Oscar Mayer and William Lotharius, put their Scout knowledge to practical use on the Fourth of July when they were instrumental in saving the life of an 11-year-old girl on Eastlawn avenue. This young miss was celebrating the Fourth by lighting a huge firecracker. Somehow or other her dress became ignited and was soon a mass of flames. The boys happened along just at this time and with quick intuition stripped off their coats and smothered the flames. The doctor who attended her later reported that while her injuries were serious she would doubtless have died had it not been for the prompt work of the Boy Scouts.



By Dan Beard

BESIDES the wickerup, the wigwam, the tepee and the open camp, the red man built and still builds little houses known as "hogans" and these hogans make good shelter for over night hikes, if they are distributed in the right places along the trails. They are always welcome sights to the tired scout looking for a camp site.

The hogan is a simple, primitive sort of shelter, made like a crude basket set upside down. In the first place one must





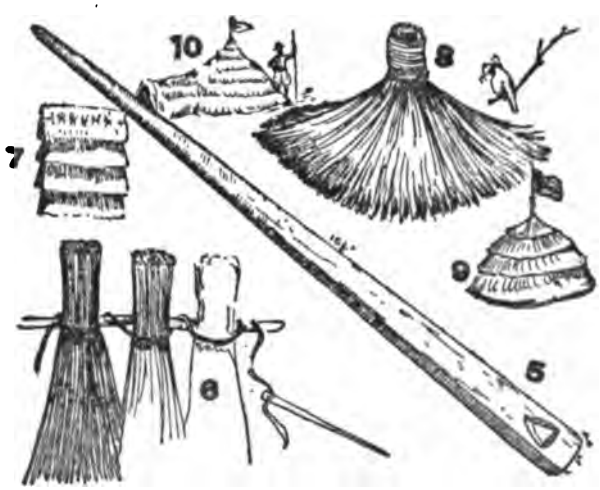
A Boy Scout Hogan

gather a number of small green sticks, willow sticks are the best for the purpose, trim off the branches and bend the smaller ends up and bind them together with strips of bark as in Fig. 1, then put the butt ends of the sticks in the ground in a circle as in Fig. 2 or 2B, weave in other sticks, basket fashion, Fig. 3, until you have a framework such as is shown in Fig. 2. Fig. 4 shows how to bend the sticks around first over and then under so that the spring of the stick and friction will hold it in place. If at any point the two forces are not strong enough the intersection of the sticks may be bound with strips of green bark, as it is at AA, Fig. 4. After the framework is complete the hogan may be thatched with balsam bows, pine bows, hemlock bows, goldenrod, ironweed, but best of all with tall grass of any kind or rushes, the leaves of the common cat-tail, for instance, being best adapted for such a purpose as this.

Fig. 5 shows a wooden needle, which the Chief secured at Cow Neck, Long Island, used in thatching roofs. There are no thatched roofs on Long Island to-day, but at a quaint farmhouse where the needle was discovered they still had the old beehives made of twisted straw, such as are seen nowhere to-day except in picture books or on coats of arms and trademarks. Fig. 6 shows how this needle is used to bind the thatch together. Fig. 7 shows how the thatch is placed in layers like shingles, beginning at the bottom and after finishing that layer putting another layer above overlapping the first until the apex of the roof is reached. When these points are done a cap may be made like that shown in Fig. 3 and placed upon the roof as shown in Figs. 9 and 10. The hogan is then complete.

The Boy Scouts in Europe know how to thatch roofs much better than we do in America, for thatches are still used there, although long ago forgotten in the United States.

Openings may be left in these hogans for windows or ventilation. In a large hogan an opening may be left in the top, as in a tepee, to allow the smoke from a center fire to pass out, but with a small tepee one must be very careful with a fire when the thatch is dry, for dry thatch is exceedingly inflammable and one does not wish to see a carefully made hogan go up in flames.



Capturing Alaskan Mountain Sheep

By J. Alden Loring

Field Naturalist of The Roosevelt African Expedition

DURING the spring of 1901 I was sent to Alaska by the New York Zoölogical Society, for the purpose of advertising among the hunters, trappers and traders the society's needs for live animals, and also to attempt to capture white mountain sheep.

On April 24, the steamship *Bertha,* on her first trip of the season, landed me at the little Indian village of Tyonek, about two thirds of the way up the Inlet.

At Tyonek, I secured, as head man, Mr. H. H. Hicks, a thoroughly competent and trustworthy fellow who was well acquainted with the sheep ranges and spoke the Indian language fluently. Any scout who knows Mr. Hicks' present address can do his "good turn" by sending it to me at Owego, N. Y.

Most of the ice in Knik Arm, a tributary of Cook Inlet, was still intact (although Cook Inlet was free to its head) and would remain so until the spring tides should become high enough to tear it from the mud-flats at the head of the bays where, during the winter, it had slowly formed with each incoming and receding tide, until it had reached a thickness of eight feet.

For this reason we were held up a week, but on the second of May, in a small sloop propelled by oars and a favorable tide, we left Tyonek, and over a calm surface headed for Fire Island and the mouth of Knik Arm. Two hours later a breeze sprang up, so we hoisted sail and "forged ahead," if that's the correct nautical term. Late in the afternoon, through what appeared to be a haze, I saw an island, but soon discovered that it was simply an optical illusion: a mirage, such as are often seen in the deserts, but instead of being a beautiful lake, here it assumed the form of an island.

At six o'clock we were bucking a strong tide, and through the fieldglasses I saw a squall coming ahead, and, with it, the vanguard of the ice-pack, that floats backward and forward with the tides, a certain quantity of which each time finds its way to the open sea.

Taking in some of the sail we began beating back and forth, at first dodging the few scattering chunks of ice without much trouble, but as the floe became thicker the difficulty grew, and little progress was made until we managed to work in under the lee at Fire Island, which also somewhat broke the main ice-floe.

It was useless to attempt to buck the wind, tide, and ice, so we anchored close to shore and, as the tide receded, kept pushing the craft into deep water to prevent stranding, and to be ready to continue the journey with the incoming tide. The day was well spent when this happened, but we managed to gain ten miles and anchored at eleven o'clock, under a glowing Arctic sunset (one could see to read a newspaper all night throughout June) near the east bank of the mouth of Knik Arm.

Morning found the sloop high and dry, with about a hundred yards of mud-flat between us and the water. With the float-

ing of the boat we crossed to the west shore just in advance of the incoming ice, which, as we turned north, closed about us, so we lay on our oars and drifted in the pack. There is little danger in drifting in this manner, if one takes the precaution to wait until the tide is high enough to float the ice. Should it strand ahead, however, the ice behind will become blocked, and the heavy pressure of the pack on so frail a craft as ours would crush it like an egg shell.

On nearing Knik we saw, with the glasses, that the ice in front of the village still adhered to the bottom, forming a peninsula with a narrow channel on each side. The course we were following would carry us past the mouth of our channel, so we jumped out on the ice-cakes and hauled the boat through the pack to the very edge of the floe, and, on reaching the mouth of the channel, guided the boat into the entrance and found ourselves floating between walls of ice three feet high and about fifty feet apart.

Several Indians ran to meet and warn us that the ice ahead had jammed, so the sloop was beached behind a jetting piece of shore-ice, and unloaded. The Indians were employed to carry the outfit the three hundred yards to the unoccupied cabin in the village which was to be our home during the brief stay.

Here the sloop turned back with the next tide. We spent two days patching up a *bateau* we had rented, and engaging two Indians, Andrew and Billy, who, like all Indians, can never be hired without two or three days' wrangling.

On the morning of May 7, the *bateau* was loaded, and, as it was of light draft, we were able to push out into the narrow channel long before the ice came in. Rounding the end of the ice peninsula we rowed up the other channel in open water until late in the afternoon, when we landed on the east shore near a cabin owned by an Indian named James Ephim. James was reputed to be a mighty hunter and we hoped to add him to our party.

The camp-fire had scarcely been kindled when James and his family appeared. Hicks told him that we were bound for the mountains after live sheep, but, realizing the difficulties of capturing and transporting adult animals, we hoped to catch the lambs and bring them up by bottle. James listened to the end of the story and then gave us the same encouragement that I had received from the minute I set foot in the country, to wit:

"It can't be done. Young sheep are born in the inaccessible crags and from the minute of their birth are as capable of taking care of themselves as are their parents." No, he was *positive* it couldn't be done.

Hicks then hinted that his presence with the expedition would be acceptable and made him a direct offer. Well, now, that gave an entirely different aspect to the situation. Jim thought that there *was* a possibility of success. Yes, he was quite sure of it on second thought, and finally, to make a long story short, it was the easiest undertaking on earth. Of course, he was not sure he could go; he had to consult his wife; he would let us know in the morning.

Morning came, and we began to load the boat. Jim did not turn up, although we felt that he was watching from his cabin. We knew enough about Indian nature not to start an all-day argument by sending for him, so we pushed off and rowed along close to shore. Jim came out of the cabin as we were passing and asked if we were not going to wait for him. Wait for him? Why! we supposed, because he had not shown up before, that he had decided not to go. We were in a hurry, and as the boat was already somewhat crowded, we had decided that we did not really need him. Oh, no, we were

wrong. He had always intended to go. If we could only wait for him *to pack his duds* he would be with us in a few minutes. We reluctantly agreed to wait "a few minutes," and I believe that Jim broke all Indian records for haste in joining an expedition.

The delay was enough to enable the incoming ice to overtake us, so again we floated in the pack close to shore until the tide turned, when we worked our way to the bank and, taking refuge behind a projecting piece of shore-ice, kept pushing the boat into deeper water as it threatened to strand with the receding tide.

At eight o'clock we started out, well ahead of the ice, and by ten we had entered the mouth of Knik River. The sluggish current first met with proved that our battle with the treacherous ice was at an end.

Two days later, May 10, after "lining" the boat with ropes along the shore, against a strong current (during which we all had several amusing and at the same time exciting experiences with quicksand), we made a base-camp at the junction of a small stream which ran into a tributary of Knik River up which we had turned.

Enough of the timber was cleared away to afford an unobstructed view of the mountains back of the tent, so, with the glasses, we had about three miles of rugged range under observation on each side, while directly opposite camp on the east side of the river was a huge mountain towering high above timber-line.

There were still great patches of snow on the mountainsides, but practically none in the lowland. At all hours throughout our stay we frequently heard the roar of snow-slides and the peculiar hissing sound that immediately follows it for several seconds.

From the time camp was made sheep were in sight through the fieldglasses; three behind us to the west and three on the mountain across the river opposite camp. We finally identified them as rams.

A solitary old ram who loafed on the slopes within a mile of camp for several days we named Billy. We always knew where to find him. One day while the Indians and I were prospecting for a water passage into a lake three miles away, Hicks took my camera and secured several fine photographs of the old veteran at close range. The Indians were strong for transferring Bill from the mountain to their stomachs, but I concluded that bacon, bannocks, rice, beans and coffee were good enough for a people who had heretofore been living on straight dried salmon, so Bill lived on.

As all the sheep in sight seemed to be rams, Hicks and Andrew shouldered their blankets and two days' provisions, and pitched over the mountain back of camp on a sheep prospecting tour. The other two Indians and I spent the time hunting the mountains in our vicinity, but saw nothing. Hicks found plenty of snow on the west side of the mountain and scarcely any exposed feeding ground for sheep. He saw one black bear and three rams.

It had been impossible for me to gain any information concerning the lambing season. Even the Indians, who are credited with wonderful knowledge of animal life, were unable to say when the lambs were born. From the appearance of the country, it seemed that we were somewhat ahead of time; nature surely would not bring her infants into this world on snow.

For three more days we scoured the country for ewes but all we saw were rams to the right of us and rams to the left of us, so we decided to shift camp.

On May 16 we left the base-camp with ten days' provisions and a small shelter tent, and, taking to the *bateau,* followed up the creek for about three miles into a lake, at the head of which the boat was hauled out on shore. Shouldering our packs we

traveled about ten miles and made camp on the bank of a stream flowing out of the mountains to the west.

A refreshing night's rest put us in good shape for real work. After breakfast, Hicks and Billy skirted the mountains north of camp, while Andrew, James and myself worked south, along the base of the range, until we spied four ewes feeding on a steep grassy slope at the foot of the crags. We watched them all day but failed to see lambs. Late in the afternoon they took to the rocks for the night, so we returned to camp.

Hicks and Billy were already in. They had found five ewes, so we were fortunately situated between the two bands.

Every morning each party took its stand, and for a week kept close watch of the sheep. Our band was always found in the same location, and during the entire time they did not stray from a space more than a quarter of a mile square. They loitered about, some cropping the grass and some lying down and gazing into the valley below, but with the approaching night they slowly made their way into the crags.

One morning they could not be found. For over two hours we kept the glasses scanning the slopes and crags for five miles on either side, when suddenly they seemed to emerge from the solid rock directly in front of us, near the top of the divide. Possibly a wolf or a bear had frightened them the night before and they feared to come out and feed until they were sure the coast was clear.

Black bears were very common. We saw sixteen during the trip. While their tracks were often found on the sandy flats and timbered lowland along the river, the grassy mountain sides seemed to be their favorite feeding ground. They would come out of the alder and "devil-club" thickets in the morning and return to them at night, spending the day prowling about the slopes. We frequently shifted the glasses from the sheep to a bear and watched him rooting in the grass and overturning the stones with his paws in search of ants, mice, grubs and insects. I had hard work restraining the Indians from shooting. They were determined to get some fresh meat and begged me to let them kill a bear, but as their black powder 45 Winchesters would have scared the sheep out of the country, I was, of course, obliged to deny them the privilege.

The evenings about the camp-fire were occupied in discussing the actions of our respective bands, our chances of success, and the methods to be adopted should a lamb be seen. At one time four strange ewes joined Hicks' band and remained with it for several days. They finally became frightened and took to the high crags, where they stayed a day, but the following morning they could not be found.

Finally Hicks reported that one of his sheep was acting strangely; she did not trail the others as closely as usual, fed very little, and spent much of her time lying down apart from her companions.

One morning as we were about to leave for the watchingpost, three ewes were seen skirting the mountainside back of camp. They were traveling from the direction of those we had been watching and we rightly concluded that they were part of our band, for, on taking our old position, not a sheep could be seen. Loath to give up, we spent the day watching and returned to camp feeling rather blue.

The following day, after Hicks and Billy had left, we climbed the mountain and finding the tracks of the three sheep on a snow-drift, followed them over the top for three miles and then lost the trail. Just as we were about to turn back, I spied three sheep (possibly the same ones), mere specks in the rocks far to the North.

Shortly after our return to camp, the

other members of the party came in, Hicks carrying a beautiful little snow-white lamb in his arms. After our joy and the excitement had somewhat subsided, he gave us the story:

For more than an hour after reaching the watching station they could not locate the ewe that had lately been acting strangely. Suddenly she appeared from behind the rocks in the thickest of the crags about half a mile above timberline, and with her the lamb. The hunters started at once and had good but steep climbing until they reached the crags. Even then, it would not have been so difficult had they been able to select the easiest route without fear of being seen by the ewe, but as it was they must keep in hiding. Separating some distance below the pair, they worked their way on either side and Hicks managed to creep unseen between the lamb and its mother. From behind a rock, hidden from the sight of the lamb, he allowed the ewe to see him and she took to the highest of the crags and was soon lost to view.

The lamb was lying on a narrow rocky shelf, and when the hunters reached both ends they crawled toward each other on hands and knees. On seeing its retreat cut off, the lamb jumped to its feet and ran toward one man, then toward the other, but they worked slowly, giving it time to recover before again advancing. When the distance between them was only a few feet the lamb ran into Billy's arms and was captured. It struggled violently at first, but finding that it was not hurt, soon quieted and took its capture calmly.

It proved to be a male and by the time it had reached camp had become much attached to Hicks, who had carried it the entire distance. Even while Hicks was eating supper it showed much uneasiness while under the care of a strange keeper, but quickly became friends with every one. Solitary confinement in the pen of poplar poles that was quickly built it would not tolerate. It kept bleating, attempted to jump out and ran about the inclosure, bumping its head against the poles.

I saw that it would soon worry itself sick, so spread my blankets out in the pen and for three days and nights was little Billy's constant attendant. During the day he frisked about like an ordinary lamb and took great delight in climbing over me. When I raised my knees he would mount to the top and stand gazing about. At night he snuggled close to my side, and as he dozed his head sank lower and lower until it rested on my cheek and he fell asleep. A sudden gust of wind awoke him with a start and he was on his feet at once, but when I spoke he sniffed at my face and then lay down again.

Cloudy, threatening weather for three days obscured the mountains, and Hicks and the Indians could not find the remainder of the sheep we had been watching, so we concluded they had become frightened and left the country.

Under the circumstances it was thought best to leave this section, return to the base-camp and then pitch to the other side of the river and work the big mountain opposite camp, where we had seen several rams, the east slope of which should yield results.

Jim had become so homesick as to be useless, so I let him return to his wife and family.

Possibly due to the excitement of being captured and transported several miles to camp, possibly to the artificial diet of weakened condensed milk, the lamb within half an hour after receiving its first meal showed symptoms of stomach trouble which gradually increased, despite doses of weak blackberry brandy administered, and he died just before we started on the return trip.

Three days later we had moved the base-camp to the east bank of Knik River,

packed over the top of the mountain and located a temporary camp at timberline on the lower edge of a grassy slope half a mile from the crags. The camp was too close to the mountains for an extended view in either direction, so early the next morning after breakfast we crossed the narrow valley and took a watching position.

The glasses had hardly been focused when five sheep were seen about a mile away and shortly afterward twelve more came into view from behind a spur of rocks. Although they were all ewes, close scrutiny with two pairs of glasses for over an hour failed to reveal any lambs. Shifting my glasses to the mountain side directly back of camp, I soon found a ewe and lamb in the midst of what seemed to be an impenetrable mass of cliffs and crags near the very summit of the mountain.

No time was lost in starting the chase. We paused at camp long enough to snatch a bite to eat and rid ourselves of superfluous clothing, and were about to start on, when the ewe tore up the mountain at breakneck speed, leaving the young one lying beside a rock. We felt sure she had not discovered us and after she had described a wide circle and had lain down by the lamb, we realized that she had been exercising.

The ascent to the crags was so steep that in many places we had to use both hands and feet. On gaining the crags I exchanged my shoes for soft bottom moccasins, which are far better fitted for rock climbing in dry weather.

Noted as Indians are for being expert hunters, my men invariably selected the easiest course, regardless of whether it exposed them to the sheep's view, so I ordered them to the rear and gave Hicks the lead. The climbing was hard—all crag climbing is—but it is astonishing how one can, after a little prospecting, find a way around what at first seemed to be an impassable crag or cliff. There were moments of peril while crawling along a narrow ledge or working past a jetting point of rocks where the footing was questionable and the reaches long. By obeying the commandments of alpine scaling (which every scout should bear in mind), "keep your eyes above you" and "divide your weight evenly between a footing and hand hold," so that should one give way, the added strain will not too quickly be thrown upon the other, we slowly worked ahead, but it was no place for a man with a giddy brain.

When near the spot where we had last seen the sheep, we halted and I stayed with the Indians while Hicks reconnoitered. On returning he reported that there was a ewe in the rocks three hundred yards above, but not the one we were after. We went on, under the protection of the crags, to within a hundred yards of the sheep, when a lamb was discovered lying by its mother's side.

Hidden from view, we watched the pair for half an hour. The mother refused to leave the little one for some time, but finally wandered away, and when she had reached a position beyond the lamb's sight, Hicks allowed her to see him and away she went through the crags and quickly disappeared.

A little maneuvering, and the lamb was surrounded, so we began to slowly close in on him. As we came into sight he glanced back and forth at us from his comfortable little bed at the foot of a cliff that blocked his retreat from behind. Nearer and nearer we drew, still he showed no signs of fear, and then the ridiculousness of the situation dawned on me. Here we were within fifteen feet of an animal that both hunters and Indians had sworn it was impossible to catch because of its wariness and agility, yet it had not moved. Nor did it move, other than to turn its head from side to side, until I had picked it up

and Hicks was in the act of tying its four feet beneath it with a handkerchief, when it struggled for a few seconds.

The ewe and lamb that were our first objective had seen us and made off over the mountain, the mother stopping frequently to allow her offspring to catch up. Though I had little hope of their success, I sent Andrew and Billy after them, while Hicks and I took the lamb to camp.

We cut a flour sack in half, ripped a hole in the side and tied the ends of a stout cord to the upper corners of the sack. Placing the lamb in the sack, its head protruding through the hole, we brought the sides of the sack over its back and pinned them together with safety pins; and each in turn carried the animal swung about his neck.

On the slope at the foot of the crags, while I was in the act of photographing Hicks and the lamb, an eagle swooped down within ten feet of Hicks' head, then turned gracefully, shot upward and winged his way along the mountainside without pausing. While capturing sheep in Colorado I saw an eagle attempting to capture a lamb in like manner, and had we not frightened it away by shooting, it might have been successful.

We took our time, fearing to excite the lamb. On nearing camp, I saw Billy tearing down the mountain slope at breakneck speed. With the glasses I discovered that he was carrying a lamb. Andrew was in camp when we arrived and shortly Billy came in. The worthless Andrew, as soon as he had left us, returned to camp by a circuitous route and left Billy to continue the pursuit of the sheep alone. After an exciting chase, he managed to corner the lamb in the rocks and to capture it. It was so exhausted from rough handling that it immediately lay down and slept soundly for two hours.

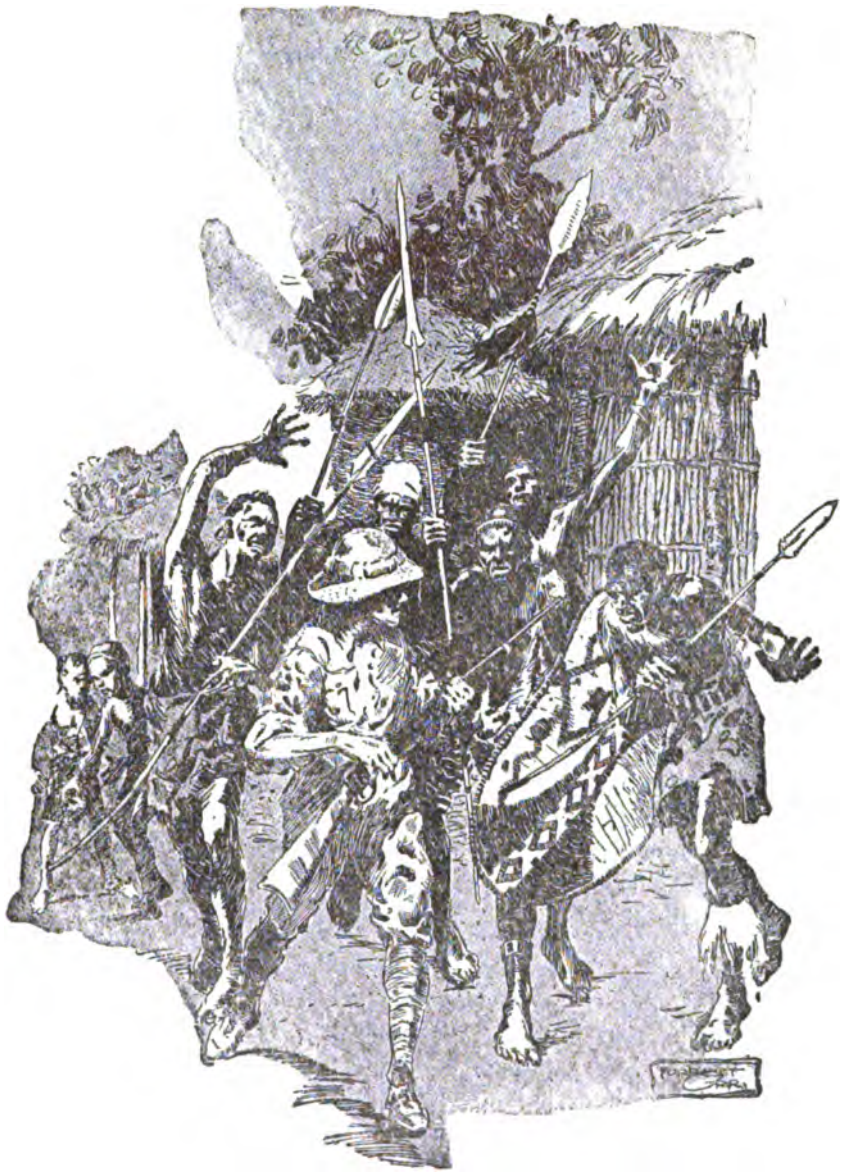
The mosquitoes were so bad that I made a netting for our captives, and after sleeping with them that night, Andrew and I left for the river camp, while Hicks and Billy remained to continue the hunt. The lamb that we had captured showed a remarkable increase in strength and growth from the day before, but the one Billy had caught developed stomach trouble before receiving its first meal of Nestlé's Food, which we decided to try.

They gave us no trouble on the journey. We took it easy, stopping at intervals to take them out of the carrying sacks, to let them stretch their legs. Like the first lamb we had captured, they became interesting pets. At camp, I made a portable wire inclosure and at night placed them in the tent and covered them with mosquito netting. Billy's lamb became weaker and weaker from day to day and we saw that it could not be saved.

Hicks and Andrew returned the third day. They had seen one lamb that managed to evade them. That night the strong lamb was taken sick with the usual disorder, and despite all we could do, both lambs died between five and six o'clock the following morning.

Discouraged and altogether convinced that we could not rear lambs on the artificial food at hand, we packed up and started back.

On the way back I bought from the natives two bear cubs, one black and one brown. The latter has grown to enormous size. By reading the label on the front of the bear dens at the New York Zoölogical Park in the Bronx, he can easily be identified by any scout who wishes to make his acquaintance.



Down the Salwin

By C. M. P. Cross

Illustrated by Forrest Orr

HERE, Horace, give me that rifle. Now get over to the treasury building just as fast as you can travel. Don't sulk. I know you can shoot and we are in a tight fix, but you can do a lot more helping keep the children quiet than out here getting a bullet in you the way your father has. Your mother

would never let you stay if she knew. Trot along and be quick about it. Do you hear me?"

The boy reluctantly surrendered the gun. There was no choice when Captain Johnston ordered, but he turned none too rapidly toward the stucco building which in ordinary times served as courthouse and treasury for the Maubin district, but had now been transformed into a citadel of which the high white walls of its compound were the encircling outworks.

It was indeed a nerve-racking time. Ever since the outbreak of the war, there had been sporadic risings in the district as one "prophet" after another announced that the time had come and that he had received a divine commission to overthrow with the help of the Germans the "Ingleese" and drive them into the black water whence they had come. There had also been unending rumors, but nothing really serious had occurred till the morning before, when Ko Bwe, the headman of the village of Clelah, fifteen miles out in the jungle to the east, had staggered up the steps of the bungalow of Commissioner Terry. His head and shoulders were covered with dah gashes and there were two bullet-holes through his legs, but he had managed to struggle in with the news that his village had been destroyed by dacoits who were on their way to attack Maubin.

The risings of the guerilla Bondulah, who led them, already had threatened several times to become dangerous, and, with a band such as Ko Bwe reported to be with him, the white community had had no choice but to seek shelter behind the walls of the treasury compound. Some few of the town's people had joined them there, but most, on first inkling of the approach of the dacoits, had taken to the jungle to join them and share in the plunder and license that would follow their capture of Maubin.

The treasury compound had been kept in the best possible condition for defense and after the one company of Sepoys had been stationed at their posts, there had been nothing more to do but wait with determination to hold out to the bitter end.

There had been no way to send for help. The telegraph line had been cut almost the exact minute that Ko Bwe staggered up to Commissioner Terry. Some thought this would attract attention at Paya Poon, the garrison town of the province, thirty-five miles down the Salwin. This was a vain hope, for Bondulah was resourceful enough to see to it that one of his men who had been discharged from the telegraph service for exacting too much *baksheesh,* should receive and answer, so far as necessary, all the messages for Maubin.

By dusk the dacoits had reached the outskirts of Maubin itself and drawn their lines, strengthened by the renegade townsmen, around it ready to attack in the morning. The night had dragged through with terrible anxiety for the defenders of the treasury compound. A young lieutenant had tried in spite of the bright moonlight to slip down the Salwin in a canoe, and had been ambushed and killed before he was out of sight of the treasury building.

The real attack, however, had not begun till dawn, and then cautiously with some scattering shots at the walls. Bondulah was aware that the ammunition of the whites was limited, and he used every means of inducing them to waste it.

There were feigned assaults. Stuffed figures were advanced from the surrounding jungle as if endeavoring to skulk up to the walls and precious bullets were wasted on them. Now and again, some of Bondulah's more reckless spirits could not be restrained and swarmed up in a real attempt to storm the walls. They had so far been easily beaten off, but each such assault made a serious inroad on the supply of cartridges.

In the meantime the dacoit snipers from every tree of vantage, had kept incessantly at their work of picking off those who exposed themselves. The casualty list lengthened. Horace's father had been hit in the shoulder and his mother was busy caring for her husband and the other wounded.

As the morning advanced the situation grew more and more serious. Finally about nine o'clock Lieutenant Ormsby went to Captain Johnston with a scheme for swimming down the Salwin for aid. "It seems to be our only chance," was the answer he received to his proposal. "If you wish to go, you have my permission. God grant that you may get through."

Ten minutes later Ormsby slipped into the water at the end of the wharf and, keeping as low as possible in the water, let himself be carried downstream. Anxious eyes watched his progress from the windows of the cupola of the treasury building. Horace, with the others, watched the speck that was Ormsby's head as it was borne along by the current.

His knowledge of the river currents, gained in many fishing expeditions, made him keenly alive to the significance of Ormsby's every move. Timidity kept him quiet for some minutes, but he finally burst out: "Why on earth doesn't he get in fifty yard closer to the shore? That cross current will surely get him where he is now and sweep him into the cove where the dacoits are. It is too late now, though."

Before any one else could speak, Mrs. Terry, the wife of the Commissioner, with a manner that lacked only a lorgnette to render it complete, after surveying him for an instant with all the contempt of a certain type of woman for the boy that is heard as well as seen, remarked to the others:

"Well, if it isn't that child. If I were his mother I would see to it that he had better manners. I am sure Lieutenant Ormsby will succeed. Surely no one is better fitted than he. Just as if it made any difference what part of the river he is in, if only it is far enough from shore. I think he is doing just the right thing in keeping out in the middle."

Horace, abashed at the rebuke, slipped out of the room, but from a window on the floor below, he saw Ormsby swept into the cove, a slim Talaing canoe shoot out from the bank, the bowman rise, plunge a spear into the water, and draw a limp body into the canoe which then flashed back into its lair.

Horace had already realized that matters were exceedingly desperate. He had even overheard one Sepoy officer say:

"I was with White at Ladysmith, but never in such a cobra's hole as this. We can keep them off as long as daylight lasts, but our ammunition will not hold out much longer than that, and then, with one rush, it will be all over but the butchery—and you know Bondulah."

But Ormsby's fate aroused him to think with all his might as he went down the treasury stairs. "If we only had a submarine." Like a flash an inspiration came. He got his favorite dah and went out to where a clump of giant bamboos had been cut down to clear a way for the rifle fire from the treasury windows. He set to work and cut out from near the top of one of them a piece consisting of three of the shortest joints he could find, which, however, made the total length about three feet. Several of the soldiers shouted at him to get out of there in native terms that fairly made the hair on his neck bristle, but he ignored both them and the bullets whining around him until he had cut his piece. Then, with a few suitable retorts, he carried it to the shelter of a shed.

Another idea occurred to him, and he returned to cut out another section. This time, however, he dragged it down to the

wharf. Watching his chance he slipped down and threw it out into the river. He did not wait to see what became of it, but went back to his first piece, only stopping on the way at a clump of what the natives call wah-lah, or blowpipe bamboo. From it he cut a single joint. This gave him a tube about three feet long, with an external diameter of about an inch, which he took to the piece of giant bamboo.

In this, very carefully, with all the skill that years of handling the dah had given him, he then cut, close to one of the middle joints, two holes in the shell diametrically opposite each other, just large enough so that the tube of the blowpipe bamboo could, with a few gentle taps, be forced through and project a couple of inches on one side.

Horace put the long end to his lips and sucked his lungs full of air, and blew it out. This he did two or three times. "I guess that will be all right," he said, "if they do not take me for a *cathaboung* (porpoise). I only wish I could wait till dark, but it would be too late then. Let me see, thirty-five miles to Paya Poon. I must hurry." Then he stopped. "No, I don't think I will. They might get suspicious of the third. I wonder if they paid any attention to the first one. Well, here goes."

So saying, he picked up his piece of giant-bamboo with the tube of blow pipe bamboo projecting through it at right angles, and went down to the wharf. There he poked around among the rubbish until he found an old ball and chain, weighing about ten pounds, such as were still used in the jail, and some pieces of rope. Then, very cautiously, he groped under the floor of the wharf down to the water's edge.

Here, in the half darkness and hidden from sight by the piles at the upper and lower side of the wharf, he tied the iron about his waist with one of the ropes. The end of another, hardly more than a string, he tied securely about the big bamboo, close to the place where the tube pierced it. Taking the free end firmly in one hand, and feeling with the other to make sure that his jack-knife was open in his pocket, he slipped quietly into the water, already yellow from the up country rains.

The bottom shelved rapidly and the weight was heavy, but he kept afloat until clear of the wharf. Then, putting the long end of the tube in his mouth and blowing all the water from it, he let the iron weight pull him under, until he checked himself by the string tied to the big bamboo. He was then about two feet under the surface breathing through the blowpipe bamboo tube and effectively concealed by the muddy water so long as no one investigated the innocuous-looking three-joint piece of bamboo, which had come to join the other driftwood on the river.

No one, until he has tried it, can realize the difficulty of breathing under water through a bamboo tube. But Horace stuck to it. What water leaked in around his lips he swallowed. There would be a limit, of course, to such a disposal of it, but he hoped by that time to be beyond Bondulah's lines. Another thing that bothered him was the current. At the surface he knew the one he was in shifted out to midstream opposite the cove where the dacoits were, but how far down that current extended he did not know. He could only hope that it went below his depth.

The minutes slipped by. Presently he heard the dip of paddles. He could not see through the muddy water, and could not judge as to the distance. Then he heard a murmur of voices, and finally distinguished some of their words. They were Talaings, but their language re-

sembled the Burmese he had picked up at the Maubin bazaar enough for him to get the gist of the conversation. The first words Horace heard riveted his attention.

A heavy voice said: "Hi, Ba Tin, see that bamboo out there on your right. Had we better see if it has got a letter aboard?"

"What is the use? We looked at one only an hour ago and it was nothing but a piece of bamboo. If any of those dogs of *Ingleese* think they can send a letter down for help, how in the name of Manu's thousand devils are the swine at the other end going to guess which bamboo of all this driftwood has it? Here we've come looking for a louse on the bald head of a Poonghi (Buddhist priest), to see if that water-soaked cradle of iniquity of an old log had another white calf hiding behind it. I say go ashore where we can at least chew our bhang in peace and listen to the sahib begging us and the ants to kill him quickly. Bondulah is keeping us out of the fun up at the town to-day, but we get into it to-night, whatever his orders may be. A fish's scale for them then. I would rather be eaten alive myself like the sahib by red ants while pinned down by a spear through my stomach, than miss paying the wife of Commissioner Terry for that time down at Sagine, when she had her *saice* cut me with his whip because I had a load of fish on my head and could not get out of the way soon enough to suit her. Let us go ashore. Toom Jee might take a crack at the thing though just to see if his arm is shaky."

There was a report and the tube was nearly jerked from Horace's mouth as the bamboo was hit by a bullet. A laugh followed, and the same voice said, "Any letter of those pickled in whiskey Ingleese will be well pickled in water by the time it gets there. Now let us go back and stir up the sahib, if the devils grant he be still alive."

The voices died away, but Horace was having to swallow more and more water. His tube had evidently been cracked by the bullet. He would not mind for a while, but he did not dare to come to the surface for some time yet. Below Maubin the Salwin took a big bend back to the east into the heart of the country that was being ravaged by Bondulah's hands, and though most of them would by this time be at Maubin for the expected sacking, there might be a stray dacoit or two prowling about.

As the time crawled by, Horace racked his brains. He must be approaching the Meejoung deep, where there was always a man-eating crocodile lurking.

He tried to think of the lay of the land in that part of the country. He had not often been as far down as this, but he remembered that the river here was flowing along the side of a hill of granite to the Thu Gi or devil's gate where it narrowed to a hundred yards, was swift for a half mile, and then doubled back on the other side. Across the hill it was only a mile. There was also the chance of finding a canoe on the other side. On the other hand there was the possibility of encountering a dacoit, but a man-eating crocodile was almost sure to be found in the Meejoung deep.

Cautiously he let go of the tube and pulled himself to the surface. For a minute he rested and looked around. He was none too soon. He saw from the marks on the shore that the Meejoung deep was less than half a mile ahead. It was a miracle that he had not already been snapped under by some crocodile.

It was now or never. He reached for his knife and cut away the iron weight. Then he swam stealthily to the left bank, landed on a shoal and as quietly as he could stole into the jungle. He had chanced on a fairly well worn path and it behooved him to be careful. It was well on toward noon and he had to reach Paya

Poon by two o'clock if he were to be in time. There were still some ten miles to go after reaching the river on the other side.

The path led straight up and over the hill. So far Horace had seen no sign of life. He could not have much further to go. He vaguely remembered this path, having crossed the hill by it with his father once in search of jungle fowl. He must be close to the house of one of the suspected ring-leaders of the rising, Lu Galay.

He was right. Coming out of a thick tangle of low bushes, he found himself in front of a house. Beneath it was a group of about ten armed dacoits. The path led on by the house into the jungle and down to the river. To turn back would be to give up. There was nothing to do but run for the river.

The dacoits saw him and, with a shout, sprang to their feet after him. Fortunately, the house was some fifty yards back from the path, and, as Horace was half way across the little clearing when discovered, he entered the jungle with a hundred yard lead on his pursuers. Moreover most of them were half stupefied with bhang and did not run well. It was only two hundred yards now to the river. If only there was a canoe there. Evidently the dacoits had no guns, for they did not shoot.

Putting all his water-soaked strength into the race, Horace tore down the path as it wound about among the beetle palms of Lu Galay's garden, dodging and slipping as he strove to run along its twists and turns, several times missing collision with one of the slim gray trunks by a hair's breadth. Judging from the sounds and remarks behind, some of his pursuers were not so successful. If only there were no short cut, by which they could head him off, there was still a chance though he knew at least one of them was gaining rapidly.

On he raced, finally bursting out on to the river bank with a momentum which would have carried him into the river had he not been quick-witted enough to use it in forcing the smaller of two canoes drawn up on the bank down into the water. There was a paddle in it, but he must first prevent pursuit. He tugged frantically at the big one, but it was too heavy for him to start.

A shout only about thirty yards back in the grove told him he could not linger. He quickly scooped up the five paddles in the big canoe, dumped them into the smaller one, and, with a last desperate shove, pushed it out on to the river and jumped in just as a dah whirred by his head, gashing his scalp, struck the heap of paddles, and slid with a rattle to the front of the canoe. There was a big sampan tied further along the shore, but Horace felt sure he could outpaddle its single pair of oars, and judging from the maledictions hurled after him, there were no other canoes or paddles.

For a time the dacoits tried to follow along the bank but, even with the help of a species of path there, the current and Horace's sturdy arms proved too much for them. With a last outburst of curses, they gave up. Horace's scalp wound bled some, but a few dashes of river water soon checked it and he settled down to paddle ten miles in an hour with the current.

He succeeded, but was nearly exhausted when he finally swept around the sharp bend at Paya Poon and drew up alongside the launch. Much to his relief steam was already up. Some of the answers to telegrams intended for Maubin had sounded queer and Colonel Hobbs, commander of the Paya Poon forces, had determined not to trust them at a time when as he had heard Bondulah was raising the country.

He had ordered the launch to be made

ready to start late that night, and two companies of Sepoys were getting their knapsacks ready to go on board. When Horace drew alongside and gasped out the news that Maubin was on the point of being taken by Bondulah, orders flew fast, and in ten minutes the soldiers had crowded the little two-decked steamer and she was breasting the current of the Salwin with every ounce of steam-pressure safety would permit.

Horace never remembered much of that trip up the river. He managed to keep his eyes open, but he had not slept since the previous morning. Now the strain was over and all he could do had been done. He could only wait and hope they would be in time. The officers tried to draw out his story but his thoughts were intent on what might be happening at that time in Maubin.

Once by the Thu Gi, all kept their eyes glued on the banks and the machine-guns were set up to send their streams of lead into any clump of trees that manifested signs of life. Opposite the Meejoung Deep rifles were fired at them, and for a time it looked as if a landing party would have to be detailed to go ashore and clean up the lurking savages. But presently the machine-guns were brought into action and as belt after belt of cartridges were fired into the cover on the bank the natives ceased their rifle fire and crept away to safety. They had not the courage to stand up and face this ripping, tearing instrument of death that their hated enemies possessed. But hardly had this situation been cleared up when the steamer rounded the bend where Ormsby had met his



There was a report and the tube was nearly jerked from Horace's mouth

death. Another blast of rifle fire from the bank swept the deck, clipping splinter from rails and pilot house. Despite these fierce volleys the men leaped to their machine-guns and brought them into action, and as the terrible hail of death poured into the mass of foliage on the bank the lurking natives broke and ran with yells of terror and consternation. They had had enough of that kind of fighting. This spitting machine-gun was more than they cared to face. With these enemies disposed of, and sent hurrying off through the jungle thoroughly scared the little steamer started on its way up stream again, the men now thoroughly stirred for a good fight in the bush. Horace, despite his weariness, was keyed up to fighting pitch, too, though he had to admit to himself that his eyelids were heavy and about ready to close.

Ten minutes later they drew up to the wharf. The Sepoys marched off to speed Bondulah on his fleeing way and Horace was lost in the mob of his friends, who swooped down on him delirious with joy and relief. It was all turmoil and confusion, and the only thing he clearly remembered as they finally led him off to bed was hearing Captain Johnston saying pointedly to Mrs. Terry, "Well, the *child* saved Maubin."

What's in a Name?

By Clifford Howard

OF course, you know what your name is, but have you ever stopped to think where your name comes from and what it means? Perhaps it has never even occurred to you that Christian names like *John, Henry, Robert, Benjamin* have any meaning or that family names like *Smith, Jones, Clark, Johnson* mean anything more than mere words to designate certain families. Nevertheless, each of them has a distinct meaning. *John,* for instance, comes from the Hebrew and means *the gracious gift of God. Henry* means *the head of the house. Robert* signifies *famous. Alfred* means *a good counselor.* These last three are old Saxon names. *Benjamin* is a Hebrew name and means *Son of the right hand.* Then there are some that come from the Latin, like *Oliver,* meaning *an olive tree*; and others, like *Theodore,* which means *gift of God,* come from the Greek; and there are certain familiar ones that have come down to us from the old Celtic race of the British Isles, such as *Owen,* meaning a *lamb,* and *Donald,* a *proud chief,* and *Arthur,* meaning *noble.*

We find, therefore, that if we trace our first names back to their beginnings they all have their particular meanings. And we find also that away back in those ancient days these names were given to boys and men because they were supposed to fit them in some way, just as the North American Indians have names like Strong-heart and Killbuck, etc. To-day, of course, we have forgotten all about the original meanings of our names, and we call a boy John or Harold or Ralph simply because we like the name or perhaps because we want to please some relative in the family, and not because Harold is a champion or Ralph is red-headed, which is what these names really mean.

Before the year one thousand there were no family names, such as Smith,

What's in a Name?

Johnson and the like. In those olden times persons had only first names, and usually only one name apiece. We see this, for instance, in the Bible characters—Abraham, Isaac, Jacob, Samuel, David, John, Peter, Paul and all the other familiar ones. And the same thing is true of all the famous men of ancient history—Alexander, Cyrus, Hannibal, Socrates, Homer, Nero, etc. Some of them had two names, and sometimes three, as Mark Anthony, Julius Cæsar, Pontius Pilate; and there were others who had titles attached to their names, as William the Conqueror, Richard the Lion-Hearted, Alfred the Great, etc., in order to distinguish them from others of the same names; but these were not family names.

In time, however, there were so many Johns and Richards and Henrys that there was no way of telling them apart, except to say John the son of John, Richard the son of William, and so on; and by and by these were shortened to "John, John's son," and "Richard, William's son," which afterwards became shortened to the still simpler form, John Johnson and Richard Williamson, and thereafter all the descendants of those particular families were known as Johnson and Williamson. And in the same way we got our family names of Jackson, Richardson, Jacobson, Allison (Allenson), Jackson, Robson and a good many others of that kind.

We see, therefore, that certain of our family names come really from first names by simply adding the word "son"; and there are others which have come by merely adding the letter "s," as, for instance, Richards, Matthews, Edwards, Daniels and the like. And our old familiar friend *Jones* belongs to this class, for it really is *intended* to be *Johns*, but long ago somebody spelled it wrong and ever since it has been *Jones*.

A great many family names represent the trades or occupations of our great-great-great grandfathers. John, the miller, and after that his descendants were known as Miller. And Robert, the baker, started the family name of Baker. And thus we have many other familiar family names—Carpenter, Mason, Taylor, Shoemaker, Brewer, Draper, Shepherd, Fisher, Hunter, Clark (clerk), Page, Harper, Singer and a whole lot more. But chief among them all is *Smith*. The reason there are so many Smiths to-day is because there used to be so many different kinds of smiths—blacksmiths goldsmiths, silversmiths, coppersmiths, tinsmiths, locksmiths, arrowsmiths, and so on. Each, for short, was known simply as a smith; and each different kind of smith started his own family of Smith.

In many cases if there was something very striking about a man—if he was very short or had very red hair or had some peculiar trait or habit—it was used for starting a family name, and that's how we have such names as Little, Small, Ross (which means *red*), Black, Gray, White, Strong, Long, Longfellow, Whistler, Noble, Swift, Doolittle, Savage, Wise, etc.

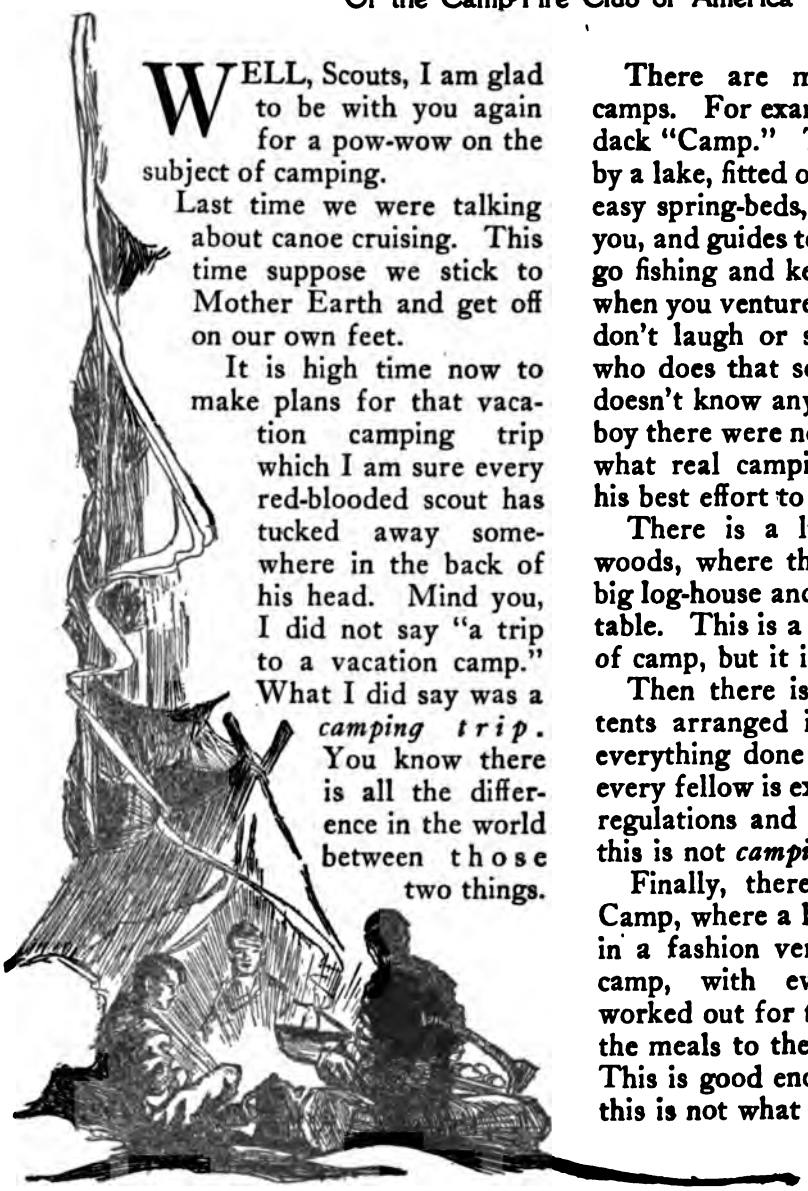
Certain other family names are the names of places where our ancestors used to live. Thus, Robert, of Chester, became Robert Chester, and all his people after him were known by the family name of Chester. And that's how we get such names as Washington, Lincoln, Bancroft, Buchanan, York, Kent, Carlisle, Huntington and a good many others like that. And sometimes, if a man did not happen to live in a town, but lived by the brook, he became John Brooks; or if he lived by the hill he became John Hill, and if it was below the hill he became John Underhill. And that's where such family names come from, and several others, like Marsh, Field, Forest, Wood, Church and Lane.

These are just a few examples to show the different ways in which our family names originated and what they mean.

Camping the Buckskin Way

By Frederick K. Vreeland

Of the Camp-Fire Club of America



WELL, Scouts, I am glad to be with you again for a pow-wow on the subject of camping.

Last time we were talking about canoe cruising. This time suppose we stick to Mother Earth and get off on our own feet.

It is high time now to make plans for that vacation camping trip which I am sure every red-blooded scout has tucked away somewhere in the back of his head. Mind you, I did not say "a trip to a vacation camp." What I did say was a *camping trip*. You know there is all the difference in the world between those two things.

There are many different kinds of camps. For example, there is the Adirondack "Camp." This is a handsome house by a lake, fitted out with nice furniture and easy spring-beds, with servants to wait on you, and guides to row your boat when you go fishing and keep you from getting lost when you venture out in the woods. Now, don't laugh or sneer at the poor fellow who does that sort of thing. He simply doesn't know any better. When he was a boy there were no Boy Scouts to teach him what real camping was like, and this is his best effort to find a substitute.

There is a lumber camp in the big woods, where the men sleep in bins in a big log-house and eat their meals at a long table. This is a useful and necessary kind of camp, but it is not *camping*.

Then there is the military camp, with tents arranged in rows like a town and everything done according to rule, where every fellow is expected simply to obey the regulations and do what he is told. But this is not *camping*.

Finally, there is the organized Scout Camp, where a lot of fellows get together in a fashion very much like the military camp, with everything arranged and worked out for them, from the making of the meals to the planning of their games. This is good enough in its place, but even this is not what I mean by camping.

What we are talking about now is the kind of

camping that made our pioneer forefathers strong, stalwart, self-reliant, resourceful men—the kind of camping that stands a fellow on his own feet and puts him on his own resources, to take care of himself; packing his own outfit, pitching his own tent, building his own bed, cutting his own wood and cooking his own grub. That is the kind of camping that every scout needs and every red-blooded boy wants.

Of course, the best place to do this kind of camping is in the real, big woods, and the scouts who can get off into the big woods are fortunate. But not every scout can go to the big woods. Perhaps it is just as well that he can't for the present, because he might get into trouble for lack of experience. And he can get that experience right near home, even if he lives in the heart of a city.

The real meat of camping is in the spirit of the thing, and the scout who has the buckskin spirit will find a way to get real camping, if he has to camp in his own backyard.

Just to illustrate this point: I remember one day passing a vacant lot near the center of a town not far from New York City. In one corner of that lot I saw a queer little shack made of a piece of oilcloth stretched over a couple of poles. In front of it was a little fire, and on the fire was a steaming kettle, full of something that smelled good; and by the fire, watching the kettle, were two boys.

They didn't wear scout uniforms, but there was something about the camp that made me feel that those boys had the real buckskin spirit, so I went up and spoke to them, and asked if they were scouts.

"Naw," they said. "We're not Boy Scouts—we're *camping*."

Well, you see, of course those fellows had got us all wrong, because they didn't know what Scouting really means, and maybe they had got the wrong idea from some fellows who thought they were scouts and weren't. You know it takes more than a scout uniform to make a scout. The thing that makes a scout is the Scout Spirit. When I told these fellows what the scout spirit really was they realized that that was just the thing they were striving for and didn't know it.

So, Scouts, when you plan that camping trip let it be the real thing, even if you have to camp in a vacant lot in town. If you don't know how to plan the real thing, ask your Scoutmaster to show you and perhaps some of the suggestions I am going to give you now may help.

Organizing the Party

When you plan to go camping don't take too big a crowd. A party of four is just about right for a trip in the woods, and when you get experience enough to make your Scoutmaster and parents sure of you, two are even better. In any case, don't take more than six or eight. A larger crowd is apt to develop into an expedition, and makes the problem of picking a camp site and cooking the meals so difficult that it ends up by somebody doing most of the work and the rest getting in the way.

Of course, at the beginning you should have your Scoutmaster show you how to do things, but every scout should look forward to the time when his Scoutmaster is willing to trust him to go off with one or two bunkies and stand on his own feet. Then you will know the real joy of taking care of yourself, meeting difficulties and conquering obstacles by your own efforts, taking hardships when they come, and learning how to smile when your eyes get full of smoke, the frying pan upsets and spills the beans, and the rain comes down and finds a leak in the roof right over your left ear.

Don't try to bite off too big a chunk the first time. You can't expect to jump right

into a real camping trip in the big woods and make a success of it without training and preparation, any more than you can expect to make a success of flying by standing on top of a house and waving your arms. Campcraft is a high art, which must be learned by practice and experience. I was in training for fifteen years before I made my first long trip in the Canadian Northwest, and from year to year I keep a sharp eye on the growth of our home scouts to see who is ready to take a trip with me in the woods of Canada. Only the most trustworthy, clear-headed and resourceful are fit.

So, begin right now, Scouts, and get *yourselves* ready for that trip, and at the same time plan your outfit so that it will be ready, too, when the time comes.

Hikes, Overnights, and Longer Trips

You can get a lot of practice in campcraft from your ordinary troop hikes, if you work them right. Don't just go off for a walk and a good time, but make it a matter of principle to learn something. I learn something new every time I go out. That is the fascination of woodcraft—you never come to the end of it. So, when you go on a hike, make the most of it. Don't take along a lunch of sandwiches and a bottle of cold coffee, as I have seen some so-called scouts do; take something that will give you practice in cooking, and make it different each time. Begin with simple things such as bacon, hot dogs, a piece of steak or a chop, or perhaps a chicken. Don't cook it in a frying pan—any chump can do that—but learn to do it artistically by spitting it on a forked stick and roasting it over the coals (*not* in the flame). When you are master at this, try a Mulligan stew. Then learn to make *good* camp bread. I don't mean the abominable flapjacks and "sinkers" that are simply good to ruin your digestion, but a good, wholesome bannock of johnny-cake baked in a reflecting oven or *baked* (not fried) in your frying pan. Then try the boiled cereals—boiled rice with raisins is a great favorite with my scouts, and when we have corn-meal mush there is never enough to go around.

There is no reason in the world why you should not have just as good, wholesome food in camp as you have at home. It is just a matter of knowing how, and until you know how you are not fit to go camping.

Take along a real ax instead of the little tenderfoot hatchet and learn to handle it skillfully in cutting and splitting your firewood, for you will need this skill when you go camping. Learn how to choose your lunch camp ground intelligently, finding good water, a good chance for wood, and a place where the wind will not blow your fire all over the countryside.

When you have learned to do these things like a real scout and not like a duffer, ask your Scoutmaster to take you off on an overnight hike. This will give you a chance to practice more advanced cooking and to learn something more about choosing camp grounds, pitching tents, building camp-fires and the very important art of packing your outfit like a woodsman and not like a traveling junk shop.

For these overnight hikes you can begin with some place near at hand where the job is easy and little by little, as you gain skill, you can take longer and more difficult trips. Then some day, perhaps, your Scoutmaster will let you go off by yourself with a bunkie.

There are lots of interesting trips you can make when you have learned how to do it. For example, two of our scouts went recently from our home camp in northern New Jersey to the camp of National Scout Commissioner Dan Beard, in Pike County, Pennsylvania, traveling on

foot and living on the country. Another party went across to the Bear Mountain Camp. Two other fellows, who were still more ambitious, took a two weeks' hiking trip through the Adirondacks, paying no attention to roads or trails, but going right through the woods with their compasses, guided only by the government topographic maps, and finishing by climbing Mount Marcy. When you can do this you have a right to call yourself a real camper.

The Camp Outfit

While you are teaching yourself how to do things, of course you will be getting together things to help you do them. And that brings us to the important matter of the outfit. The camper's outfit is the surest sign of his skill and experience, and when you see a fellow staggering along under a load that looks like moving day, you can put him down at once for a novice. The experienced camper is known by the things he *does not* take to camp. I don't mean by this the fellow who thinks it is clever to go without things and endure unnecessary hardships just from bravado. That is a sign of another kind of novice. The experienced camper takes everything that he really needs and nothing that he does not need, and he learns how to pack it efficiently.

Tents

Naturally, the first thing we think of in planning the outfit is the tent. One can get along on short trips without a tent, throwing up a wind-break when it blows hard, or building a lean-to, using the tarpaulin for a roof if it rains, and you should learn how to do these things when you have to in emergencies. But in the long run it generally pays to take a tent.

When I say a tent, I don't mean a house. One day in the wilds of Canada I ran across an outfit in a wall tent almost as big as a flat for light housekeeping. We sized them up at once as duffers and dubbed them the "circus tent outfit." When we saw them afloat in a canoe piled high with all kinds of junk, we knew that our judgment was correct.

All you really need in the way of a tent is a shelter big enough to keep your bed dry at night when it rains. One doesn't live in a tent in camp. He *lives* outdoors, and goes into the tent only when necessary. All the tent you really need can be rolled up into a very small bundle. A little "pup" tent is good enough for short trips, but my favorite is the lean-to shelter with open front.

The simplest kind of shelter is the ordinary "baker" tent, so-called because it has the shape of the reflecting oven in which we bake our camp bread—and it works in very much the same way. It is the finest thing you can imagine for cold weather. Pitched with its back to the wind with a good fire built close in front, the sloping roof reflects the heat and you can take off your gloves and coat even with the thermometer well below zero. In the summer time it is delightfully airy. Of course in hot weather you don't put the fire close enough to be uncomfortable.

My favorite tent for light hiking is a shelter that I use as often as conditions permit. In principle it is like a baker tent, but it is pitched on a ridge pole or rope instead of a square frame. This makes it lighter because it uses less material, and makes it shed water better, since the slope is steeper and there is no broad roof to sag and hold a puddle. It is made of light but closely woven cotton goods, waterproofed with alum and sugar of lead. It weighs just four and a half pounds, and is big enough for three to sleep on in a pinch. Some day I will tell you how to make one just like it.

Don't try to use an ordinary wall tent when traveling. It is heavy and bulky and

clumsy and takes a long time to pitch. And whatever you do don't have a tent that shuts up tight at night. You might just as well sleep in the cellar. Don't have anything to close the front of your tent unless it be a mosquito bar. And by the way, that is a very important item if you are going where the troublesome little humming birds are plentiful.

Beds and Bedding

The most important thing in camp is the bed. It is all very well once in a while to pull through a night shivering with the cold or squirming between rocks and bumps, when you have to, but an experienced camper always takes pains to get a good night's rest, and the more experienced he is the more care he will take in preparing his bed. He knows that with a good night's rest he is ready for a hard day's work; without it he is not good for much. So he takes great pains in selecting his bedding to suit the particular trip he is making, and in fixing it for the night.

The best kind of bed for any given trip depends upon the conditions—the kind of country, the time of year, the probable state of the weather, and the facilities for carrying. So all I can do here is to lay down some general rules and leave the rest to the camper's judgment.

First, we want to get the greatest possible warmth with the least weight. The warmest thing of the kind for its weight is wool (barring eider down, furs and such materials that are used only in wilderness work). And wool is warmest when it is soft and not too closely packed. A hard, tightly woven blanket is not nearly as warm as a soft fluffy one of the same weight. The reason of this is that the thing which keeps us warm is really not so much the wool itself as the air entrapped between the fibers of the wool. When the wool is woven hard, we lose the advantage of the air spaces. Fortunately soft, warm, woolen blankets are easy to get in these days. Modern army blankets (not the old, before-the-war style) are very good and can be bought quite reasonably.

The warmest thing I have ever used is a quilt made of two sheets of thin flannel stuffed with carded wool, in the way an ordinary bed quilt is stuffed with cotton. It was designed by Major David T. Abercrombie, and is one of the finest things he ever made. These quilts are expensive if you buy them from an outfitter, but a scout who lives where sheep are raised could make one very easily and quite cheaply for himself. Such a quilt made an inch or so thick will keep one warm in very cold weather.

Do not waste money on cotton blankets. If you gauge them according to the amount of warmth they give they cost almost as much as wool, and they have one great disadvantage. Cotton absorbs moisture like a sponge, and when damp it becomes chilly and clammy so that it is practially useless for bedding. Wool does not absorb moisture readily, and it keeps its warmth even when quite damp. That is why a woodsman wears woolen underwear and heavy woolen socks in camp, even in warm weather.

You should be sure to have some sort of waterproof ground sheet to put under your bed, to keep the moisture of the ground from your bedding. When traveling the same sheet is used to wrap up your pack, and in a pinch it may be used also as a poncho. The best material in the long run is an oiled tarpaulin. Rubber is good when new, but it is expensive and after a little use it cracks and is no longer waterproof. Ordinary table oil cloth will do for short trips until it cracks.

There is a good deal of art in making the camp bed. The first thing is to select a suitable spot. This should, of course, be a piece of dry ground, preferably soft with

leaves or mold or vegetation. And be sure that it is smooth and free from bumps and stones before you build your bed. One can spend a night if necessary on bumpy ground, but a little time spent in leveling is well worth the trouble. The hardness of the ground does not matter much—the things that make your bones sore are bumps.

When camping in woods where there are balsam, fir or spruce trees, a delightfully soft bed can be made of "browse," that is, the tips of the branches. These are broken off about a foot or a foot and a half long by taking the twig between the thumb and finger and bending it sharply *downward*. When you get the trick it will snap like a pipe stem. The branch tips are laid on the ground like feathers on a duck's back, the tips pointing toward the head and the points stuck into the ground. They are laid overlapping each other like shingles, beginning at the head and ending at the foot. Then if you want to be very luxurious, go over it again with another layer, sticking the points through the lower layer. This will give you a bed that will make you hate to get up in the morning.

A bed like this is very comfy and is worth making if you are going to spend several days in one place, but after you have been out a while you will not care to bother too much with bed building. When you get used to it the bare ground, if level, with perhaps a little hollow for your hip, is perfectly comfortable. I have spent three months at a time in camp without ever bothering to pick browse for a bed.

Having prepared the foundation for your bed and spread the ground cloth, the next thing is to arrange the bedding. There are several ways of doing this. One very good way is that used by the cow-punchers in the West. Lie down on your back and spread all your blankets over you, one on top of the other. Then roll over to the left, and as you roll let the right side of the blankets flap down over your back. Next turn back to the right, rolling on top of this under-flap. By turning clear over on your face the left hand side of the blankets will flop under your back on that side. Then when you turn back on your right side you will find yourself rolled up like a mummy and as snug as can be. Finally, lift your feet and with a quick, dexterous flop turn the lower end of the blankets underneath, and you are fixed for the night.

If you are short of bedding you can keep much warmer by doubling up. Spread half your bedding on the ground, making a bed wide enough for two, then you and your bunkie lie down on it, close together, spreading the other half over you. Tuck the flaps well under your feet and on both sides, and you will sleep much warmer than if you lay singly, provided your bunkie does not pull your share away from you. If he does, you will know what to do to him.

Always remember the first rule of camp bedding is *have at least as much under you as you have over.* The reason is that the ground is almost as cold as the air, and your bedding does not keep out the cold so well when compressed. Consequently, the layers underneath, squeezed flat by your weight, do not give as much warmth as those over you.

In windy weather a sheet of canvas adds greatly to the warmth of the blankets by keeping the wind from sifting through them. Such a sheet is always used by the cow-punchers and is called by them a "Tarp." When folded under in the way described above it takes the place also of the ground sheet.

If you are going to spend much time in camp it is well worth while to fix a permanent bed, instead of using loose blankets. I do this by folding my blankets lengthwise about three inches at one side

of the middle, making the top fold six inches wider than the bottom. This makes a flap which tucks under your side when you go to bed. Then I sew the lower ends together, turn under the upper flap and sew it for about a foot or eighteen inches up the side. This makes a sort of bag or pocket which keeps your feet from kicking out. Any number of these folded blankets may be put together, one inside of the other. Then I have a slip cover made in the same way out of closely woven, but not waterproof, cotton goods. This has tapes along the side a foot apart which can be tied together, making the whole thing into a sort of bag. When you get in bed simply reach down and tie the tapes and you are perfectly snug for the night. In the morning untie them and the whole bed can be thrown open for airing. This arrangement is much better than the ordinary sleeping bag, since it is far easier to get into and not so hard to air. It is better also not to have the cover waterproof, since a waterproof bag works both ways. It keeps the moisture of your body from getting out and so makes your bedding damp. If you don't believe it, try a waterproof bag on a cold night and see the thick layer of white frost that gathers in the inside.

Whatever you do, *don't take a cot.* Cots are all right and even necessary in permanent camps, where the ground becomes tramped into dust, but they are an unmitigated nuisance when traveling. And a cot is the coldest thing that was ever invented to sleep on, because the air gets underneath as well as on top. Even a snowdrift is warmer. I know because I have tried it and have been comfortable in my drift, whereas on a cot I have been wretched.

The Cook Kit

Having provided for shelter and comfort at night the next thing to think about is the grub, and if you are going to have good grub you must have a proper outfit to cook it with. The first and most important thing is the camp kettle. This comes in various sizes for different purposes, from the little pot in which you make your porridge for breakfast to the big kettle in which you boil your beans or heat your dishwater. You should have kettles of various sizes made to nest one inside the other, so that the whole outfit takes no more space than the largest kettle. The cups, which should be of tin and made in conical shape so that they nest one inside of the other, go inside of the smallest kettle.

It is important to get the right kind of a kettle. Don't get anything soldered if you can help it. A soldered kettle will stand the heat if it is kept full of water, but when the water boils low it will melt apart. Particularly be sure the ears which hold the bale are riveted and not soldered on. Otherwise you will almost surely see your dinner drop into the fire. The cover should fit on top of the kettle, so that it can be removed without taking the kettle off the fire.

Camp outfitters sell various kinds of kettles at various prices. The best in the long run are made of aluminum. These are expensive, but if you are going to use them year after year they are cheaper in the long run because they will last almost forever if properly cared for, while a tin kettle will not last more than a few seasons at best. I have an aluminum outfit that I have used on an average for three months each year for ten years, and it is just as good as new. Tin kettles are all right, especially if you can get the kind that is stamped out of one piece. For day hikes and short trips you can make your own out of old fruit cans with the tops melted off and a hole punched in each side for a bale of hay wire.

Do not try to keep the kettles bright on

the outside, but let them get a nice even coat of black. I do not mean a layer of burned food or smoky soot, but the smooth black varnish that comes from use over a clear fire. This protects the kettle and makes it cook much better than a bright one, because it absorbs the heat instead of reflecting it.

Next after the kettles comes the frying pan. This should be of a moderate size —I use an eight-inch one—with some means of attaching a wooden handle. The best kind I know has a round conical ferrule into which you shove a stick of wood pointed with the ax. You can then get it over the fire without burning your fingers or spoiling your temper.

These ferrule handled pans can be bought from the camp outfitters, but you can make one yourself by taking an ordinary frying pan with an iron handle and a four-inch ferrule of the kind they put on rake handles; then have the blacksmith drill some holes in the ferrule and in the handle and rivet the two together.

An aluminum frying pan is much better than a sheet iron one, since it is a good conductor of heat and does not burn things in spots; but it is no good when new. Things will stick to it until it gets a dark film over the surface. When breaking in a new pan I put a little grease in it and then deliberately scorch it over the fire. This makes a sort of varnish that holds the grease and keeps things from sticking.

Finally comes the reflecting baker. This is a sort of tin box built like a woodshed with the front open, the roof sloping downward and the floor sloping upward toward the back. Halfway between the roof and the floor are tin supports on which the iron breadpan rests. At the back are two legs to hold the thing upright on level ground. Put the dough or johnny-cake batter in the greased pan and stand the whole thing in front of a fire with a good bed of glowing coals and not too much flame. The heat is reflected up from the floor and down from the roof, and you will be surprised to see how quickly things will bake. If you don't look out they will burn before you know it. Some bakers are made solid, but the handiest ones fold up flat like a pocketbook. You can make one yourself out of old cracker-boxes.

Finally there are knives and forks and spoons, a salt-shaker, and a few tin or enamel plates. Spoons of dessert size are much better than teaspoons.

Don't use aluminum plates or aluminum cups. The aluminum is such a good conductor of heat that the cups will scorch your lips and the plates will burn your fingers. Tin or graniteware is much better.

Just how many things you will take depends on the number of the party and how you are traveling. For a canoe trip I use an outfit with four kettles which nest inside of one another, a breadpan that fits outside of the largest kettle and six cups that go inside of the smallest kettle. The frying pan and plates fit on top of the big kettle and a folding canvas bucket goes on top of that. The whole thing fits into a fiber case ten inches in diameter by thirteen inches high with the knives, forks, spoons and a big mixing spoon, stuck around the edges. This is all that four men can possibly need for a long trip.

For traveling light, when back-packing, the largest two kettles and the mixing pan and plates are left behind.

Making Your Pack

The next big problem is how to pack your outfit. If you are traveling by canoe that is comparatively simple. Just roll up your bed in one roll, the tent in another, and stow the cook kit where it is most handy. But if you are traveling on foot

Don't Fight Your Pack

there is nothing to do but to make the whole thing into a pack.

Some people use a knapsack, others use various ingenious forms of packs with pockets and things, but I prefer the simplest method of all, namely, to roll up everything inside of your bedding and then wrap the whole thing in your waterproof ground sheet. This makes a pack that can be adjusted to any sized load and can be shaped in the easiest form to carry. Incidentally the hard and sharp things are all inside and well padded by the blankets, so they will not poke holes in your back and ruin your disposition.

Having made the roll I strap it up in a pack harness. This is an arrangement having two horizontal straps long enough to go around the pack, and buckled at the back. Crossing these at right angles near the middle and about six inches apart, are two other straps having buckles on the lower ends, which go over your shoulders. The straps that go around the pack should be about a foot apart. This brings the upper attachment of the shoulder straps at the right height to go over your shoulder and carries the lower ends far enough down to make a good-sized loop for your arms.

Harnesses like this may be bought from the outfitters, but a real scout can make one just as good himself with straps bought from a saddler or harness maker and fastened together with copper rivets.

There is a good deal of art in making up and hanging a pack. With a pack properly hung you can carry a heavy load with less effort than you spend to carry half the weight dragging on your shoulders. The first point is to get the weight of the pack as close to your back as possible. A top-heavy pack is back-breaking. I have seen a fellow fit his bedroll next to his back and then strap a heavy bag of food on behind it. He thought this was quite clever since the bedroll was soft on his back. But he soon found that the weight of the bag was so far from his back that it had a tremendous purchase which dragged back on his shoulders and poked in on his hips so that walking made every muscle ache. When the pack was reset with the heavy bag next to his back he carried it without any trouble.

The pack should rest evenly over your whole back. A pack that rests too high strains your shoulders. A pack that hangs too low interferes with your leg action. The ideal pack rests easily, like a part of your body, on the whole length of your backbone.

The best shape for a pack is usually long and thin, not much wider than your body, and not stuck up so high as to catch on branches and bushes.

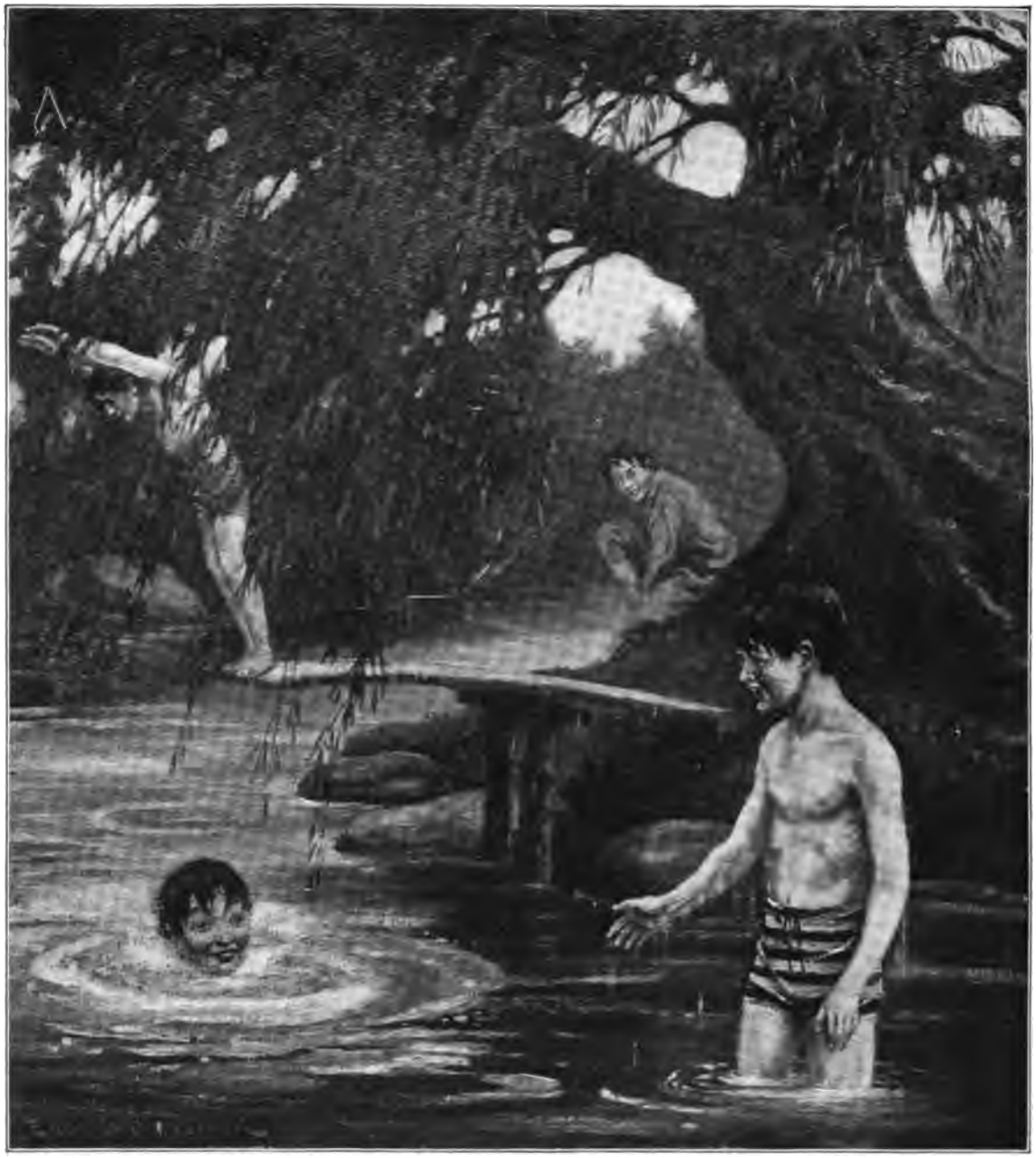
Don't Fight Your Pack

(These verses were suggested by an article written for the Boy Scouts by Dan Beard, who originated the phrase.)

When you start upon a hike,
Your pack must go along,
And so you won't forget it,
We will tell you in a song:
You know you've got to carry it,
A Scout will never slack,
So take it as it comes, my lad,
And don't fight your pack.

Straps and buckles often hurt,
Whatever load you bear;
But if it drags a little bit,
Go to it, don't you care.
Whatever troubles come your way,
And troubles never lack.
You'll find the whole thing easy
If you don't fight your pack.

DAVID STEVENS.



When We Go Swimmin'

By C. W. Moorman

Boy! it's great to shed your oxfords,
And to shake your happy rags,
When the summer sun is boiling in the sky!
And it's well to trim your toe-nails
On the rocks and river-snags,
And to bid the blistering bank a brave Good-by.

Fellows, we must hit the by-way
That goes winding in and out,
Wriggling right up to the waters, willow-girt,
That's the highway, lads, that's my way,
That's the road that suits a scout
And bids By-by to troubles, duds and dirt.

How you dash in, how you splash in!
How you dive in, if you dare:
Oh the happy thrill, the pulse-beat, the delight:
How your head does split the water:
How your heels do hit the air:
How you vanish, as by magic, out of sight!

Then you bob up with a shiver
Gently creeping down your spine,
Like a little tiger-kitten hunting game.
Oh, the quiver of the river
When you shiver, ain't it fine,
Don't it make the bloomin' bathtub blush for shame?

3018678



The keel of the launch grounded and the native jumped out and held the boat from swinging

Under the Southern Cross

By J. Allan Dunn

Illustrated by Clyde Forsyth

TED FREEMAN slipped out of his pajamas at the door of the shack and raced across the firm white sand for a dawn-dip in the lagoon. He was as brown as a native. His father declared that you would have to look under Ted's armpits to know that he was the son of a white man, but that was not quite true. Ted had two physical attributes that no *kanaka* shared. His hair was black enough but his eyes were gray and he had freckles. Under the skin it was again different. In Ted's veins the red blood held something that changed the chemistry of his mind if it did not affect that of his body. It was the heritage of the white race, the conquering race, that set him apart from the Melanesians among whom his father traded. It was not that Ted treated the native lads as inferiors, it was because he felt himself their superior. Naturally he knew more; education and environment had done that for him. But many of the natives could outswim him, outrun him, yet he was their master; instinctively they deferred to him. And he knew that he must live up to this position.

"It's this way, Ted," his father philosophized. "The natives have got brains of a sort but they don't use 'em for thinking. Maybe they could be trained but it 'ud take generations. Sometimes one is smarter than the rest, or more cunning, but they don't think things out, as a general rule. They are more or less children. Their brains remind me of a cheap brand of clock. They have to be wound up once in a while; they ain't accurate and you never know what they're goin' to do. Might be friendly with you for years and then turn on you all of a sudden."

Ted had looked up at the little armory kept in the room off the store. His father had taken pains to teach him how to shoot quick and straight—in case of trouble. But trouble seemed vague. The natives that brought them *copra* and ivory nuts, pearl shell and the horny casings of the hawksbill turtle, in exchange for tobacco and salmon and cloth and the odds and ends of South Sea Island trade, seemed a happy-go-lucky lot, living lightly, laughing easily, good-natured; passing their lives in singing, sleeping, dancing, with a little fishing, less working of crops, and still less actual labor in collecting trade produce.

Back in the bush, the dark, jungly, mysterious bush that stretched behind the station, mounting up to the bare crags of extinct volcano cones, things were different. There they were bloodthirsty, making perpetual war among the tribes, carrying off women, taking heads, capturing victims for sacrifices and cannibal feasts. But the beach-people? Ted rather fancied that his father exaggerated the dangers to impress him with caution in handling the store when he made his trips to other stations in his launch. Ted hinted as much. And his father had shaken his head.

"Beach or bush, they're akin, Ted. Only a few degrees removed. If anything happened out of the ordinary, you'd see. Can't be too careful. Mr. Redfern's got a hard job on his hands, though I admire

his nerve and respect his ambition. They like singing the *himinis* he teaches 'em. Like the music, like to listen to his talks, anything about anybody's God interests 'em, but it's all a sort of kindergarten play to them and a heap less instructive. Their own superstitions are bred in 'em, in the bone. It's a big job he's got on hand. And I wish he'd left his wife and her sister behind him. This is no place for women yet awhile but I couldn't talk him out of it. Or her."

Redfern was the resident missionary at Tiri. Tiri consisted of the Freeman's house and store combined, the *copra* sheds and wharf, the mission house on the opposite horn of the crescent bay and the half-completed church midway, near the native settlement, a church built, or to be built, by convert volunteer labor, which accounted for its tardy finishing. The thatched roof and walls were done but the interior was still that of a shed, lacking benches, lacking the glazed windows that were to come from Sydney some time when a steamer should see fit to call at Tiri.

Ted liked the missionary, a tall, stooping man with eyes that were earnest but could smile easily, and he liked his wife. Of the sister who had come over from the big Mission Headquarters on Ambrym he had seen little. The only other person at Tiri or within fifty miles of Tiri who was not a native was Ah Chee, professing Christian and the general cook and factotum of the Redfern household.

Ted had beaten the sun by a few seconds. Dawn was coming swiftly with a rosy flush, with the sound of the breeze in the palms and the cry of parrots as he slugged his way out toward the reef. Then the golden disk itself shot up—like thunder—out of the sea and it was broad day!

Ted turned on his back to get the dazzle out of his eyes, floating luxuriantly in the warm but refreshing water.

"By Jiminy," he said aloud, "it's Christmas morning. I'd almost forgotten it."

A school of tiny fishes, pursued by some finny pirate, flashed out of the water close to him, glittering as if they had been carved out of pearl. A flock of parrots, shining in vivid green and scarlet, winged their noisy way to a little island. As he swam shoreward he saw the natives coming down for their morning swim, bright bits of cloth kilting and draping them, red flowers behind their ears, care-free, chattering, laughing. It didn't seem much like Christmas. No wonder he had almost forgotten it. Last Christmas he had been back in the States with his aunt. There had been snow and sledding, skating, fishing through the ice, roaring fires and a Christmas Tree.

Oh, well, there was going to be a Christmas Tree this year, too. An ironwood had been set up in the church already and there was a box of decorations, candles, trinkets as gifts, all for the benefit of the native congregation. Mr. Redfern was going to drive home the story of Christmas with the giving of presents to his childlike converts. And Ted, who was tall for his fifteen years, was to be Father Christmas. Mrs. Redfern's sister had made him a costume of red twill from his father's shelves, with cotton batting for fur. Ted himself had made the beard of sun-bleached *piri* grass fine as hair and almost white.

It had seemed funny to Ted, this appearance of Father Christmas in costume supposedly typical of the frozen northland, of which these native sons and daughters of the sun could know nothing, understand little. But Mr. Redfern agreed with Ted's father about the minds of the *kanakas*.

"Children," he said. "They must be taught with pictures, parables, presents, and this pageant of Christmas. There is a flock of *p's* for you, Ted. But they are

very simple and, if you want to help me, you can act as Santa Claus, as the visible presence of the Goodwill Spirit of Christmas, of Peace on Earth and Goodwill toward Men."

It was going to be rather fun, Ted thought, giving out the presents. He knew all the village by name and he was going to exercise the privilege of Santa Claus and recite their little *peccadillos,* many of which had been overlooked for the sake of expediting trade and, so supposed the natives, not seen at all, or forgotten. But Ted would show them different. He knew enough native to make himself easily understood and he would use his gruffest voice back of the disguising whiskers. Lots of fun!

There was a phonograph, also, never yet played, reserved for Christmas. This had been a gift to Mr. Redfern from a man in Sydney, who was a scientist, with a bent for proving certain theories concerning the origin of South Sea tribes. He had recorded the songs of many of them and, being well able to afford it, he had hit upon the practical method of giving a machine for recording and demonstration to missionaries in outlying districts. In exchange for the phonograph and a generous selection of records, they were to secure for him the music of their converts. That was going to be fun, too, thought Ted.

It wasn't going to be such a bad old Christmas, after all. They were all to eat at the Mission House. Plum pudding and mincemeat (canned) had been provided by his father. Turtle would take the place of turkey, but there would be plenty of good things and the white folks would have their exchange of presents after the wonderful Christmas Tree and concert, scheduled for after dark, so that the candles would better display the trimmed tree and make more effective the appearance of Ted as Father Christmas.

While he was dressing, his father, who had started breakfast while Ted was in the lagoon, put his head in at the door.

"Mr. Redfern's here, Ted," he said. "He'll have breakfast with us. We've got to make an early start to catch the tides going an' coming back. We'll shut up shop to-day. If the natives want anything tell 'em to wait till I get back."

"Where are you going?" asked Ted blankly.

"Over to Malutu. Mr. Carlin at the Mission Station there is down with island fever. Word came last night. Nothing serious, but he's on his back and he don't want to have to cut out the Christmas services. So he sent a native over to ask Mr. Redfern to take 'em for him this forenoon. We can get there an' back by dusk. It won't interfere with our celebration. Only Mrs. Redfern ain't extra well this morning. That'll bring us back all the quicker. But Mr. Redfern thinks it's his duty to go an' that ends it."

"Ted," said the missionary as the three of them ate breakfast, "I wish you'd help me out in this matter. We won't have much time after we get back, so, if you'll fix up the decorations on the tree—they are all in the big case—get the candles ready for lighting, it'll speed things up. And you can get out the phonograph and the records, but don't play any of them—if you can help it——" he smiled at Ted, "that's a pretty strong temptation, I'll grant you, but I want to emphasize the service this evening with their hearing it for the first time. There are some special choir records in there with the rest. You can commandeer Ah Chee, if they don't need him at my house," he passed his hand a little wearily and uncertainly over his eyes, "and we'll be back as soon as time and tide will let us."

Ted promised, elated at the prospect of being given the responsibility, and watched the launch feel its way through the tortuous maze of reef to deep

water where it picked up speed and puttered off for Malutu. He washed up the dishes and tidied the store and living apartments and spent much of the morning standing off disgruntled natives who wanted sticks of tobacco and cans of salmon for *Kerissimussi peresenti* (Christmas present). It had not taken them long to understand that part of the season's significance, Ted thought.

By noon they had all left. Ted got his lunch. He had just finished when he saw Ah Chee, clad in spotless white, coming slowly along the beach from the Mission House. Opposite the native village he stopped for a moment and then walked toward the huts, embowered in *pandanus* bush and palms. Closer up he halted, wheeled and came shuffling through the sand toward Ted at a fast gait, his round face gradually growing red as a full moon in the mist with his exertions, gleaming with moisture.

"Hi," he said as he came up. "All those *kanaka* go 'way? No one in village! I not like that velly much!"

He was panting, sweat showed in damp blotches on his clothes, his usually calm face was troubled. Ted had never seen him before otherwise than placid, immaculate of costume.

"What of it, Ah Chee? Maybe they've gone in the bush for flowers. Or visiting. They know the Big Time doesn't start until evening." Ah Chee shook his head.

"I not like that. Suppose they go catchee floweh, makee visit, they not take along evellyone. *All gone,* I tell you. Lilly kid, ol' man, ol' woman. *No good* that kind. Betteh you look out smaht."

"I will," said Ted. He was not alarmed at Ah Chee's fears. "You going to help me with the tree?"

"No. I got too muchee to do. Plenty cookee. I come ask what time Misteh Fleeman say he be back. Misteh Ledfehn, he speak sunset. He not know so well along Misteh Fleeman."

"Before dark, Ah Chee. Anything I can do?"

"No. Only you look out smaht like I tell you. I *sabo kanaka* people too well. Some *pilikia* (trouble) walk along."

Ted watched him hurrying back. It was the haste of Ah Chee that began to impress him with the fact that Ah Chee himself was honest when he said he expected trouble. And the Chinaman did know native ways. There was no doubt as to that. He got out his Father Christmas clothes and beard to take over to the church and tried the effect of the whiskers. It was quite startling but he decided that he looked too young of face and made some effective changes with the char rubbed from a burned cork.

As he surveyed the change in the mirror he heard the shrill *toot-toot-toot!* of a launch whistle. It did not have the pitch of the whistle on his father's boat and he took off the beard and hurried out as the sound came again. A white double-ended launch was coming in toward the beach with a white man standing up as he steered and a native boy waving a red fragment of cloth. Ted ran down to the water's edge. The keel of the launch grounded and the native jumped out and held the boat from swinging, but the white man made no attempt to land. Ted's face with its cork scoring under his eyes and lining-out wrinkles made the lad flush under his tan but the man did not seem to notice it.

"You young Freeman?" he demanded. "Where's your father?"

Then Ted saw that two revolvers swung in holsters from his belt and that there were rifles in the cockpit. He told the visitor what had happened.

"You here alone? I'm Scott, the trader at Taiki."

"Ah Chee, the cook, is with Mrs. Red-

fern and her sister. Up at the Mission House."

The man scratched his head perplexedly.

"I can't stay," he said. "I've got to warn the rest. But I'll be back as soon as I can. You got liquor in the shack? And guns?"

"No liquor," answered Ted. "Dad won't handle it. There's dad's rifle and shotgun and my own, with one revolver. Dad took his automatic along in the launch."

"It's lucky there's no booze. The Chink armed?"

"I don't know. What's wrong?"

"Ngoko's son's dead. Ngoko turned Christian two months ago. Or pretended he did—to see what he could get out of it. Now he blames the boy's death on the missionaries. Claims he's got to square himself with his old gods. That may mean killing. No telling where he'll strike. How are your natives?"

The man's face turned grave as Ted told him they had disappeared.

"That looks bad, son. Shows they've heard something about it. But Ngoko's village is nearest to Heiwa. It's likely they'll tackle that first. And there are women there, too. You'd better take your guns up to the Mission House but, look here, don't you use any of 'em until they start something. Remember, you can bluff 'em six times out of ten. Especially as there's no liquor here. Your own natives know that?"

"Oh, yes."

"Well, I've got to go on. We'll try and get wind of what Ngoko is up to. It was the missionary at Heiwa who converted him—or thought he did. Seems like the trouble'll start there. Of course it may not start at all. Ngoko knows he'll have to pay for it in the end. I don't like your *kanakas* goin' off in the bush. Looks like they wanted to be out of the way. We might have got something out of one of 'em. Don't shoot unless you have to. I'll get word to your father soon's I've warned Heiwa. Shove off, Peta."

Ted saw the launch disappear as had his father's earlier in the day. Then he went slowly up to the trading shack and overhauled the guns. He tried to decide what to do. It was hard for him to believe that the happy-go-lucky, friendly natives of their own village would turn on them or give help to enemies but he knew that the nature of the native could switch from one extreme to the other in the roll of an eye and they were all deathly afraid of Ngoko, a powerful Bush-Chief. Still, he reasoned, they might have had a hint of what was forward and quietly got out of the way, hoping to avoid all trouble. It seemed almost certain that Ngoko would strike, if he struck, at Heiwa.

Meantime he was the guardian of two women with Ah Chee as an uncertain quantity. He did not mistrust the loyalty of Ah Chee so much as his fighting qualities and his courage. If he warned the Mission House the news might scare Ah Chee into desertion. It was up to him.

He decided to lock up the shack and take his arms over to the church. The Mission House stood away from the bush on rockier ground, free from cover. From the church he could see any hostile attempt in time for him to reach the Mission with his weapons. At the shack he would be too far away, too easily cut off. It was only four or five hours before his father and Mr. Redfern would be back, if they did not come earlier on the warning of the friendly trader. Ted knew that Heiwa communicated with Malutu, in plain sight ten miles away, by heliograph. Nothing at all might happen. He need not alarm the women until the last moment. And he could put in his time fixing up the tree.

The afternoon hours passed peacefully, save that there was no sign of returning natives. Ted made the tree a thing of

beauty, with the candles ready to light. He got out the phonograph and arranged the records, smothering the temptation to try one or two of them. He fairly itched to play some that could have nothing to do with any Christmas celebration. They were records of savage chants and dances —so the typewritten slips pasted on the disks told him—gathered in Guadalcanar in the Solomons, on lonely islands of the Hebrides, where the headhunters and maneaters stood on the beaches with their trade-rifles and defied entrance to their bush-paths; records gathered at hardly-to-be-guessed hazards. But he mastered the impulse and set them aside. Though the villagers were absent, they might come back and spoil the surprise that the missionary was going to use to make his service effective.

He put them on one side and glanced curiously at the titles of the rest. They were hymns, recessionals and processionals, sung by the choir of Trinity Cathedral, Sydney; anthems, one or two of them. Ted wondered how the natives would regard the mystic voice-box.

He stepped back and regarded his work. He felt satisfied with the result.

Yards of sparkling fuzzy stuff, gold and silver, gleaming globes and pendants of colored glass, imitation jewels, transformed the ironwood to a magic growth.

The sun had dropped back of the mountains and the long shadows were reaching out from the bush. It was an hour yet till actual sunset. An hour before his father and the missionary would come back. The warning of the trader had dulled though Ted had the weapons with him. The natives must be back soon. The conviction grew that danger had passed. Once he thought he heard the distant booming of drums, but it was so nearly like the sound of the surf that he told himself he must be mistaken.

The door opened. He whirled to meet Ah Chee.

"Kanaka come back?" asked the Chinaman.

"No. But they will." Ted decided not to say anything about the warning from Scott before Ah Chee mentioned him.

It grew dark fast after Ah Chee left. Ted went to one of the vacant window casements and looked seaward. He turned toward the village, hoping to see a light, but there was no sign of return. He grew vaguely uneasy, then shook the feeling off. The launch might be back any minute.

There was no lamp in the half-completed church. Ted decided to light the candles and let them burn for a little while. He wanted to see how they looked. He could blow them out when the launch arrived.

He lit the candles and noticed the shine of the star on the highest twig. It brought the memory of the Star of Bethlehem into his mind, the keen memory of the first Christmas. Then the whim struck him to try on the Santa Claus suit and greet the returning launch from the church. If the natives weren't back they wouldn't miss anything. He went back of the tree to slip on the vermilion suit, trimmed with the white. He put on the beard—the age marks made by the cork were still on his face—pulled down the conical cap to conceal the absence of a wig.

Starting for the door again he realized before he came out from behind the tree that the tropic twilight was almost gone. A star or two showed through the window spaces. Night let fall her veil and it was dark.

Suddenly he saw a face form itself out of the blackness, a cruel, savage face of black blotched with red and white paint, with eyes that reflected the light from the candles on the tree, a hideous mouth agape with astonishment. The weapons were fifteen feet away. Ted hesitated, his

heart pounding. To fire a shot would precipitate a fight. The tree had hypnotized this man—one of Ngoko's crew. Yet—he caught a stealthy rustle outside, bare feet paddling the sand. The church was being surrounded but there was no rush, no yell, no wild flinging of weapons. What held them?

It must be the glittering glory of the magic tree. To their eyes it represented magic. Something unknown—therefore to be feared.

And then Ted Freeman, with the thought of the two women foremost, did a brave thing. It was a clever thing—the one thing possible—but he had no surety of that. He hoped only for delay while the fear struck him that his father had been waylaid or had perished in some other raid of Ngoko's from which this band had come successful. His heart pounded but he did not shrink.

He came out from behind the tree.

The cannibals saw the white-bearded figure clad in scarlet—their own imperial color—stalk with dignified mien from behind the wonder-tree—saw this wizard walk to a box, open a lid, take up a black disk and place it carefully down before he turned a handle at the side of the box. They waited, their savagery paralyzed by wonder, by the expectation of something about to happen. Magic! It might strike them if they moved. It was surely very strong magic. And then it happened.

They had come filled with the lust of killing, of blood, of loot; confident, straight through the bush where the villagers had hidden themselves in fear of the raid, disdainful of the puny opposition to be offered. They knew the launch had put off. Their spies had reported that and the fact that it had not returned. Their leader—for this was a side-party, one of three expeditions—felt certain that the trader and the missionary had been slain in the main raid at Heiwa. There were only a boy, a *pa-ke* (Chinaman) and two white Marys.

Who then was this mysterious figure? What power was his to command? *Eyah!*

They could see that the church, half illuminated by the candles, was empty save for this wizard. Who then were these who suddenly made themselves manifest by voice. Ghosts? Ghost warriors summoned by the white man's magic!

The church was filled with the shrill note of panpipes, the rattling of conches, the boom of drums topped by a war chant, sonorous, ominous, defiant. The war chant of an enemy. *Eyah!* They could hear them but they could not see them. *Ghosts! Who could fight against ghosts?*

They fell back from the windows with their primitive minds filled with sudden fear, looking about them for the first sign of attack while the barbaric music poured out of the church. The record ended and Ted changed it swiftly.

"*Eyah!*" Here were more ghosts! A different tribe! In the air!

One man stumbled on another as he backed up, and yelled. A ghost had touched him. Panic took them and shook them.

But Ted knew it could not last. He would have to fight. He would leave a record playing and take the guns to the Mission House for a final stand. The cannibals would recover in a few minutes. They would suspect a trick. If only . . .

He was straightening out from stooping to get the guns when a beam of light shot athwart the window above him and he heard the shrill note of a launch whistle—of their launch. The glare of the carbide searchlight held the savages, caught between the ghosts and the white men.

Ted fired the revolver out of the window, at random, not to hit, but as a signal that he was safe. He knew his father had

properly understood the situation revealed by the beam. There came an answering volley from the launch and, in an instant, as silently and swiftly as if they had been shadows, the cannibals vanished while the bullets sang among them.

Scott the trader was in the launch with Hawkes of Malutu and half a dozen other white men, besides Freeman and Redfern the missionary. The craft was loaded to the gunwale.

Ngoko was dead, killed in the raid at Heiwa through the warning of Scott. The cannibals had gone back to their bush convinced that the white men had grown too strong for them, too wise, too wonder-working.

The villagers were beginning to come timorously back again, afraid of chastisement.

"Are you going to have the tree after all, sir?" Freeman asked the missionary. "They don't deserve it, sneaking off that way."

"This is Christmas," said Redfern, his voice jubilant. "It is the time for peace. They shall have the tree. They have been already taught their lesson. Now they shall taste forgiveness."

"Then you'd better blow out the candles, Ted, an' save 'em for later," said his father.

Ted stayed in the church while the rest went out. A thought struck him and he selected a record.

Redfern and Freeman were standing a little apart.

From the church came the sound of boyish voices, the choir of the cathedral in processional:

"Hark the herald angels sing,
Glory to the newborn King."

"Some Christmas!" said Freeman. "There ought to be a special star about tonight, seems to me, Mr. Redfern."

"Look," said the missionary.

He pointed to where, high above the Mission House, gleaming golden, hung the Southern Cross.

Ted came out of the church into the wonderful tropical darkness and saw the two men standing silently gazing up into the blue-black night sky. He too gazed upward and as he beheld the glittering cross of stars swung aloft in the heavens he felt a tightness in his throat and an emotion he could hardly suppress. Truly it was a wonderful Christmas.

The Hydrophone

All danger from heavy fogs which have been the terror of seamen in all ages is ended it is believed by the invention of the hydrophone. In a series of tests made with ships of the Navy it has been found that signals may now be sent under water for more than forty miles. It is not only possible for a ship equipped with the new device to tell its exact distance from land, but the presence of other ships may be detected in plenty of time to avoid collision, and even the depth of the water may be measured. The apparatus consists of a tank placed on the keel of the ship, about three feet deep and twenty feet long, which is filled with water. A sensitive recording device picks up the vibrations sent under the sea. This is in turn connected with a device, called the compensator, on the ship's bridge which indicates the direction in which the sound travels. A submarine recently made a long trip under water guided past all dangerous points and kept in the proper channel entirely by means of the hydrophone.

Packing the Buckskin Way

By Belmore Browne

The First White Man to Climb Mt. McKinley

THE whole problem of outfitting was explained many years ago by a grizzled old frontiersman who had become a guide for eastern sportsmen. I had asked him what sort of a personal outfit he carried into a certain mountain range.

"What sort of an outfit do I carry?" he repeated, a humorous twinkle in his deep-set eyes, "I never carries any outfit, startin' out, 'cause I knows thet when the goin' gits bad the dudes I'm guidin' 'll chuck away enough stuff to stock a country store."

The story has its funny side, but back of the humor lies a vast well of human experience. Outfitting is as easy as rolling off a log, for it calls for only two things—common sense and experience.

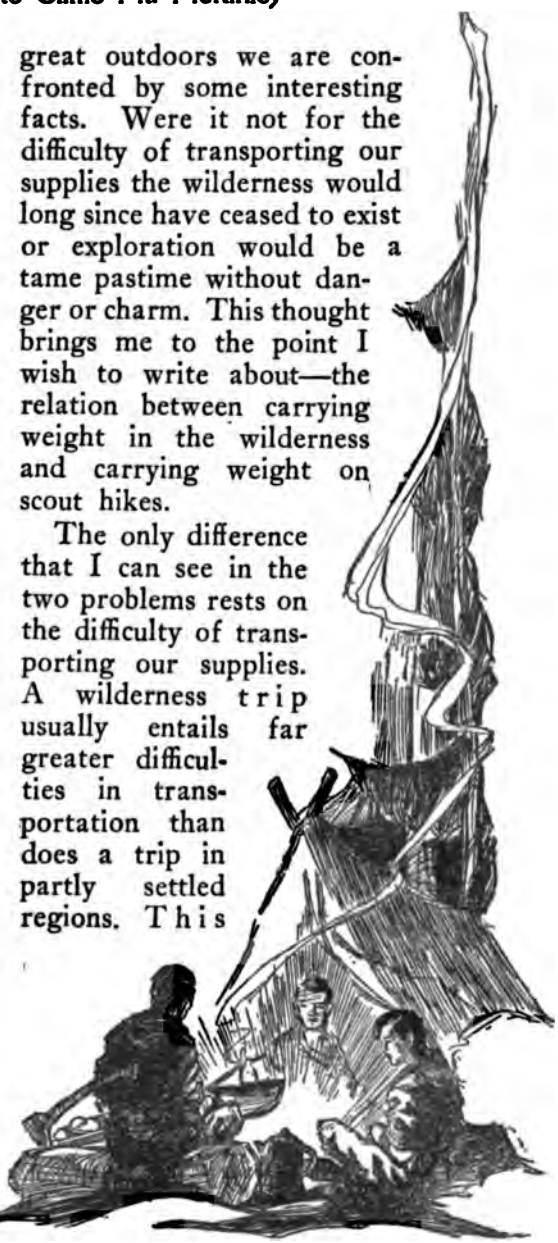
Now you can be born with common sense, but experience has to be earned by the sweat of the brow and the more experienced you become the more you will realize that the real problem in outfitting consists in carrying your outfit.

The Problem of Carrying Weight

The problem of weight-carrying has tormented mankind since the day when the cave-man staggered homeward under the weight of the wild beast he had killed for food. The red-capped porter who meets the trains is a weight carrier as surely as the half-breed trapper portaging his canoe on the edge of the Barren Grounds.

When we study the weight problem from the viewpoint of the modern lover of the great outdoors we are confronted by some interesting facts. Were it not for the difficulty of transporting our supplies the wilderness would long since have ceased to exist or exploration would be a tame pastime without danger or charm. This thought brings me to the point I wish to write about—the relation between carrying weight in the wilderness and carrying weight on scout hikes.

The only difference that I can see in the two problems rests on the difficulty of transporting our supplies. A wilderness trip usually entails far greater difficulties in transportation than does a trip in partly settled regions. This



means that in the wilderness we must either carry less or transport our outfit with greater effort and skill. The amount we can carry ordinarily would depend on the difficulties we expect to encounter, but experience teaches us that where one man fails another may, by the help of experience and skill, succeed. No real scout likes to fail where others succeed, so in the hope that some of my suggestions may be helpful to scouts I shall take up some of the lessons I have learned concerning back-packing.

Types of Pack-Harness

As it would require many pages to give even a rough outline of the different methods of wilderness transportation I shall confine myself to the most primitive of all weight-carrying methods—that of "back-packing."

My first serious back-packing experience occurred when I was seventeen years old. A valuable part of the Government forest in the Olympic Mountains had been thrown open and, although I was too young to stake a claim in my own name, I welcomed the chance to go. My companion was as inexperienced as I was and, in spite of the fact that we had been camping often, our past experiences in weight-carrying were confined to the packing of Indian ponies. From force of habit we bought a lot of canned goods. Our pack harness consisted of two gunny sacks which we fastened to our backs with rope shoulder straps.

I will draw a veil over our sufferings. Suffice it to say that when we finally reached civilization our backs bore in black and blue marks the imprint of every known canned product, and our shoulders were raw from the chafing of the rope shoulder straps.

In looking back on this experience I feel that the lesson was of inestimable value for it taught me, as no book or article could, the *wrong* way to carry a pack. For this reason I shall not attempt to lay down any hard and fast rules for I have found that one of the greatest joys in the outdoor life consists in learning by our own mistakes.

A good pack-strap should measure up to certain standards; it should not chafe the wearer and it should be light, strong, and safe. In theory there are only two types of pack-harness: the type which supports the weight from the shoulders, and the type which supports the weight from the head and neck. All pack-straps are modifications of these two types.

The "Tump-Line"

The method of carrying weight by the head and neck originated among the Indians of the eastern United States and Canada. The strap is called the "tump-line" and consists of a soft band of some strong material which passes over the forehead with the ends hanging behind the shoulders. The burden is made fast to the ends of the tump-line so that it rests against the back of the packer. The "tump-line" is the favorite pack-strap of men living in well watered country where the canoe is the principal means of transportation. Its chief advantage is the ease and rapidity with which it can be fastened to different kinds of packs, and this is a valuable asset where short portages necessitate the rapid loading and unloading of canoes. As one travels west, away from canoe and portage country, the tump-line is superseded by more elaborate harnesses, for, where there is no canoe water, men must carry their supplies day after day, and in carrying heavy loads with the tump-line the head is bent forward and downward to support and balance the weight and continuous travel in this position becomes irksome. The pack also lacks se-

curity, and where men must use their arms to climb or chop trail the tump-line is not satisfactory.

To my mind the greatest value of the tump-line lies in the ease with which it can be combined with the shoulder strap. As an illustration we will suppose that two scouts have gone on an overnight camping trip. They are carrying twenty-five pounds apiece in their knapsacks, when an accident makes it necessary for one of the scouts to carry both loads. After tying the two knapsacks together he starts onward, but before he has traveled far he finds that the weight is beginning to hurt his shoulders. It is at this point that the knowledge of how to use a tump-line will save *him* hard work and suffering. Taking two strings—shoelaces will do—he ties them to the outside lower corners of the knapsacks. He then ties the loose ends to his handkerchief and adjusts them so that when he stands up with the handkerchief across his forehead, his shoulders will be relieved of a considerable portion of the weight. This method of distributing weight between shoulder straps and tump-line is one of the most important lessons to be learned in packing.

Shoulder Straps

By far the greater number of pack-harnesses come under the head of "shoulder straps." All pack-bags, knapsacks, etc., are supported by shoulder straps, and for carrying loads of forty pounds or less they are very satisfactory. When loaded more heavily they hang too low and drag on the shoulders and, unless they are equipped with an adaptation of the tump-line, prove unsatisfactory. This weight limit of about forty pounds brings them well within the zone of usefulness for scout hikes, for where the pack is composed of small articles aggregating twenty or twenty-five pounds the pack-sack is the most satisfactory type of harness. Its only drawback is its unfitness for heavy and bulky loads, but it is this very weakness that bars it from hard trips in the wilderness. There are exceptions to this rule, however, for I have found the U. S. Army type of knapsack useful as a personal camp or emergency bag.

The leather pack-strap is another well-known type of harness. It consists of two broad shoulder straps and a system of smaller straps that hold the pack on the back. With ordinary loads of medium weight this harness is satisfactory, but my first experience on a long wilderness trip taught me that it had several serious weaknesses. To begin with, leather does not stand the continuous strain of heavy loads, and the strap is best suited to loads that are carried upright, whereas very heavy and bulky loads should lie across the back.

My next experiment was with the "board-strap," and I found that it, likewise, had many unsatisfactory features. The board-strap is a simple framework of wood over which is laced a strong piece of canvas. The tightly stretched canvas rests against the back and the frame is held in place by shoulder straps. For certain types of packing this harness is most satisfactory, but the difficulty of adapting it to bulky packs or loads that must be carried horizontally limits its usefulness. Its weight and size also considerably detract from its value as a harness to be carried while hunting.

Up to this time one of the most satisfactory harnesses that I had used was the simplest; the old, time-honored "overall-pack." This primitive method of carrying weight has been in use among frontiersmen as far back as we can remember. It consists of a pair of trousers. The waist of the trousers is buttoned around the bottom of the pack, and lashed securely in place, and the ends of the trouser-legs are tied to the top of the pack, forming

two shoulder straps. For loads of medium weight it is an excellent harness, but the fact that it can be used only on upright, and moderately small, loads, and that it is not easily adjusted, eliminates it from serious consideration.

Although I had been experimenting in a small way, it was not until I had tried the pack-strap used by the Aleutes on the south coast of Bering Sea that I was successful in evolving a pack-strap that has few, if any, faults.

The first thing that struck me on seeing the Aleute harness was its extreme simplicity, for it consisted of nothing but a piece of wood with two long strings made of walrus hide attached to each end. The stick was formed to fit the chest and the strings passed over the shoulders, around the pack, and, passing under the arms, ran upward to the breast-stick where they were fastened by a half hitch. On using the harness I found that the breast-stick was upward and outward where the shoulder-strings pulled, and downward and outward where the strings from the bottom of the pack pulled. It took only a moment to see that a soft piece of cloth could be used in place of breast-stick and that the shoulder-strings could be changed for broad straps of canvas padded with cloth with small ropes sewed into the ends. It took less than an hour with the aid of a palm and needle to make the experiment, and the result was the most satisfactory harness that I have ever used.

In 1910 I equipped a party of five men in addition to myself with this pack harness and we packed an outfit that at the start weighed more than twelve hundred pounds, from the Chulitna River to Mount McKinley, a distance of forty miles over glacier ice. It was the first time that I had subjected the harness to such a severe test and it won the unqualified approval of every man. Since then I have carried packs of more than one hundred pounds, day after day, through the trailless wilderness north of the Alaskan Range, and after long trial and the hardest use I believe it to be the simplest, lightest, and most easily adjusted pack-strap known.

My reader must not make the mistake, however, of believing that by merely equipping himself with a good pack-strap he will be able to carry a heavy pack without fatigue or inconvenience, for he is doomed to disappointment. The mere fact that a fifty-pound pack adds just so many pounds to the weight of a man's body results in a heavy strain on his muscular system, and such a strain cannot be endured without acquiring experience, strength and stick-to-it-iveness.

Taps

Day is done,
Gone the sun,
From the lake,
From the hills,
From the sky;
All is well,
Safely rest,
God is nigh.

Fading light
Dims the sight,
And a star
Gems the sky,
Gleaming bright,
From afar
Drawing nigh,
Falls the night.

(Words from Penn. Military College.)

The Emerald Buddha

By John Garth

Illustrated by Forrest Orr

PART II

(Continued from page 41)

FOR a moment Dick lay there partly stunned, the warm blood trickling down his face. Then he heard Jerry's voice.

"What in thunder was that? What's up?"

"I—I don't know," stammered the boy. "It's something horribly big that flies. Look out! Here it comes again."

Above their heads there was a swift beat of wings. Instinctively Dick rolled over on his face, and he was only just in time. He heard Jerry cry out in mingled pain and anger. Then something heavy struck against his legs and an instant later he felt one ankle gripped by sharp teeth. He yelled and kicked out fiercely, but the creature kept its hold. His right arm was doubled under him and he had lost all idea of the position of his rifle.

"It's got me by the leg!" he cried. "Shoot it, can't you?"

"I'm afraid of hitting you," panted Jerry. "Wait a second."

A moment later Dick felt his hand fumbling in the darkness. It touched the boy's head and went swiftly on along his back. Suddenly Dick felt it recoil. Then he heard Jerry gasp: "Steady, now. I'm going to crack it."

Dick lay still with gritted teeth. Jerry's leg was pressed against his body. Suddenly he felt the muscles harden and in another moment there was a dull thud, followed by a weird, whistling shriek which turned his blood cold.

At once the teeth relaxed their hold. There came a dragging sound accompanied by an odd rustling like vellum or oiled paper. The thing was moving away. Panting with excitement, Dick ventured to lift himself from the ground and began to feel about for his weapon. Presently his fingers touched the barrel, and he was pulling it toward him when a little tongue of flame burst up from the woodpile.

A live coal must have rolled over there when the fire was scattered, and for a moment or two Dick watched dully as the flames licked up over the dry branches, growing ever brighter. Then his gaze shifted and he caught his breath in puzzled wonder.

A score of feet or more away a shapeless black mass was moving slowly over the fungus-covered ground. In that first instant Dick could only liken it to a collapsed umbrella of enormous size. Then the brightening fire, or some shift in position of the creature brought it for a moment into full view and a cry of mingled astonishment and horror burst from the brothers simultaneously.

The thing was a gigantic bat! The pointed nozzle was there, the soft brown



"Boots," gasped Jerry

fur, the sharp ears, the close set, vicious eyes and the leathery wings. But the wings had a spread of at least a dozen feet, while the head, with its narrow, pointed jaw and sharp, bared teeth was quite as large as the head of a full grown setter.

"Shoot it, quick!" cried Dick.

Jerry, who till then had stood spellbound, drew his rifle swiftly to his shoulder and tried to pull the trigger. But this was jammed, and with a muttered exclamation of disgust, he dropped the weapon and reached for Dick's. As he did so there was a sudden rustle and the creature rose slowly into the air. It flew heavily, with a labored beating of its wings, but before Jerry could snatch up the rifle it had disappeared amongst the thick trees. He fired twice at random, but with no apparent effect. Then he lowered his weapon and stared at Dick.

"Of all the—nightmares!" he gasped.

Dick smiled faintly; he was feeling a little sick. "One of the—ghosts," he murmured. "Did you ever see——"

"Never!" cut in the older chap emphatically. "I thought I knew Borneo fairly well, but this is one on me. There are flying foxes here, of course, but they're not nearly as big. I did have a Dyak once tell me about a beast which might fit this creature, but they're such thundering liars——"

Suddenly he broke off and stared about him with an expression of bewilderment. "Where's Sarak?" he demanded.

Dick's jaw dropped and his gaze traveled mechanically around the circle of firelight. Things had been happening so swiftly that up to this moment there had been scarcely time to think. But now, looking back, he realized that from the moment of his awakening to the burned-out fire and that hovering black terror there had been neither sight nor sound of the Malay. His blanket lay on the ground close to where Dick had been sitting; beside it was his precious rifle. But of Sarak himself there was no sign. He might have vanished into thin air.

"You—you don't think he ran away, do you?" the boy asked slowly.

"When that thing dropped on us, you mean?"

"Yes. He's been pretty well worked up over something ever since we left camp. This might have been the finishing touch."

Jerry nodded. "I know. I don't believe he was afraid of anything—material, though. He's brave as a lion usually. It was those darned superstitious notions about spirits that got his goat. He's chock full of it, like all these natives. Of course he might have thought it was something ghostly, but surely by this time——"

He paused, hesitated a moment, and then sent Sarak's name ringing through the silent woods. Again and again he called, pausing at intervals to listen. But there was no answer, and finally, with a puzzled shrug, he turned to Dick.

"It's got me," he confessed. "What on earth can have happened to him? He'd have heard that if he was within half a mile of here?"

"Easily," agreed Dick. He was busy unlacing the high, heavy leather boot which was much torn and haggled about the ankle, but now he paused and looked up. "There's another thing, old man," he said seriously. "What's going to happen to us if he shouldn't come back? Have you any idea how to get to this—Buddha?"

"Not much," admitted Jerry frowning. "Let's see that foot of yours. Did the brute's teeth get through?"

"A little, I think. It aches, but not badly."

Jerry knelt down and removing the lace, gently drew off the heavy boot. When the boy's foot was bared, they saw across the instep a row of small punctures,

from which the blood oozed slowly. Jerry cleaned it thoroughly with water from a canteen and then produced a bottle of iodine from his pack.

"Its jaw couldn't have been very strong," he commented as he applied this, "or he'd have bitten clean through the ankle."

"Believe me, it had a grip all right," said Dick, his forehead crinkling with the sharp pain of the antiseptic. "I thought it would never let go. If we hadn't had those boots made especially heavy on account of snakes, I'd have been pretty well chewed up."

The wound was carefully bound up with clean gauze and by the time Dick had laced up his boot again they realized that dawn was upon them. The dense blackness about them had changed to a cold, ghostly gray, which in turn swiftly lightened to that shadowy half twilight that was as bright as it would ever be in the depths of this weird, depressing forest.

At once they began a thorough search of the camp and its neighborhood for traces of the missing Sarak. Dick carried his own rifle and Jerry took the Malay's. Reason told them that there was slight chance of that horrible nocturnal creature returning, yet the thought of it rarely left their minds and they moved cautiously, with many a searching glance about them and overhead.

It was Dick who first saw the crushed fungus, its fleshy spores darkening already with exposure to the air, scattered over the pale green moss. Something or some one had gone that way, and not very long ago either.

"That toadstool stuff turns black in an hour's time," said Jerry, an eager sparkle in his eyes.

Circling about, they presently found another broken bit a dozen yards or so away. A little further on they came unexpectedly upon a tiny spring bubbling out of the foul looking earth, and made a startling discovery.

In the soft ooze of its margin fresh footprints were outlined clearly. Two distinct sets there were of them, placed close together, as if from men walking side by side. One of these were imprints of naked feet—the broad, flat, calloused foot of Dyak or Malay. The other——

"Boots!" gasped Jerry, pointing in amazement.

And then they both remembered that Garcia wore boots, taking great pride in the fact that he always went shod like a white man. To their almost certain knowledge there was no other such within a hundred miles of where they stood.

Dick caught his breath with an odd whistling intake, and for a long moment the two brothers stood motionless, staring at each other, a startled, uneasy questioning in their gaze.

It was Dick who first found his voice. "How on earth——" he stammered. "What——"

Jerry seemed to sense his unspoken question. "I don't know," he answered harshly. "It's Garcia, of course. He's followed us."

"But Sarak? How did he get hold of him?"

The older fellow's face hardened, and his grip tightened on the rifle. "I don't know," he repeated. "He's after the emerald, of course. He must have left camp almost as soon as we did and trailed us. As for Sarak——" He hesitated and his eyes grew puzzled. "I don't understand that part. I'd have sworn that Sarak was loyal to the core."

"Perhaps he was forced to go along," suggested Dick.

"But how? He was there beside us. You were on watch. No one——"

"But I wasn't," confessed Dick, his face flushing. "I ought to be kicked, old man, but—I fell asleep."

"Oh!" murmured Jerry. "Still, even that doesn't explain it. Sarak was no coward. Besides, a single cry or the noise of a struggle would have wakened both of us. Unless he went willingly, I don't see——" He broke off, jaw squaring and eyes narrowed. "No matter how it happened, he's gone," he went on curtly. "It's up to us to catch them. I certainly don't mean to let that greasy half-breed do us out of the emerald without a fight for it."

There was a few moments' delay while he took out his pocket compass and set a course. Then they moved swiftly forward and presently were rewarded by signs which showed that Jerry's supposition was right. The two men were evidently proceeding more or less directly toward a definite goal.

"I wonder how much start they have?" pondered Dick presently.

"Not a great deal, I fancy. They couldn't get far in the dark. As a matter of fact, I've an idea they managed to reach the spring and waited there for daylight. You noticed that jumble of footprints on the further side? In a way, this makes things easier for us. We've only to follow their trail to come straight to the Buddha."

"But suppose they get there first, as they almost surely will, and take the emerald? We've really no more right to it than any one else, have we? It's a sort of a case of finders keepers."

Jerry nodded slowly. "In a way, yes. If Sarak chooses to lead any one else to the place—— But I still can't believe he's taking that beast there of his own free will. He's not that sort at all. There's something queer about the whole business and I mean to find out what it is."

He plunged ahead, and for a time they pushed through the jungle in silence. Jerry consulted his compass frequently and presently he found that the trail they were following began to verge slowly southward. The curve was very gradual, but it was steady, and at the end of another hour they were many points off the original course.

Jerry made no comment, but his face was puzzled. Half a mile further on he stopped abruptly and examined the ground closely. For many feet around it was trampled as if there had been a struggle. Several of the yellow fungi had been crushed flat; the torn remains of a great crimson orchid lay wilting on the moss.

The man's heart leaped and his eyes sparkled. Was Sarak rebelling against whatever force or influence had brought him here? Eagerly his gaze swept the jungle and for a moment he almost expected to see the body of the traitor Garcia lying in the shadows. But, though they both searched carefully, they discovered nothing, save that the trail, which was picked up just beyond the scene of struggle, turned abruptly to the northeast. A little further on a moist spot recorded more footprints, but in this case instead of lying side by side, the marks of the bare feet were almost obliterated by the imprints of the boots which came behind.

Jerry's eyes took on a sudden hard luster. Swiftly he set an experimental course with the compass and as before the marks of the trail presently bore him out. He was convinced that either with kris or leveled rifle Garcia was forcing the Malay to lead him to the treasure. Sarak, as he read the signs, had tried at first to take the half-breed astray. Then came suspicion and discovery, followed by a struggle in which the Malay had succumbed. He was slight and small-boned and, though Garcia was not especially big framed, he had muscles of steel. There was still a good deal he failed to understand about the matter, but one thing seemed certain now. If they wished to

save the emerald, and perhaps even Sarak's life, there was the greatest need for speed. Once the treasure was secured there was scarcely a chance that Garcia would spare the Malay.

In a few words he explained his suspicions to Dick, and then began a chase which neither of them would soon forget. For nearly a hour they sped through the jungle almost at a run, thankful that the lack of undergrowth made this possible. Most of the way led uphill. The hot, humid atmosphere was heavy and oppressive, and they were speedily drenched with perspiration. Now and again they had to pause from sheer exhaustion or to set the compass. Sometimes one of the other slipped on a mass of fungus or tripped over a trailing root, but they were up and on again, panting, stumbling, speechless from fatigue and failing breath, but dominated by the feeling that they must go on as long as they could put one foot before the other. At times the pain in Dick's ankle was almost unsupportable, but he was determined not to let it delay the pursuit.

So passed an hour. Then slowly the character of the jungle began to change. The trees lessened in girth; the undergrowth began to spring up here and there, growing ever thicker. Imperceptibly the gloom lightened until at last they could even see flashes of warmer color in the distance and felt at once that somewhere the sun was shining.

"We're coming out," panted Dick, dashing one hand across his streaming forehead.

"Provided we can get through this beastly tangle," agreed Jerry, tearing viciously at a mass of vines. "What fools we were not to bring our knives!" he added, with a groan.

Then Fortune seemed to smile on them for the first time. A few yards away to the left they saw the opening of a dusky tunnel, freshly hacked through the undergrowth. Garcia and the Malay had evidently gone this way, and as they hastily sought the opening there was an added comfort in the feeling that the cutting of it must have very much delayed their enemy.

Save for occasional hidden pitfalls the way was fairly clear. Around them the shadowy half darkness had given place to a translucent golden green. There were still trees, and large ones, but these were farther apart and not so towering. Some time in ages past the primeval forest had been completely cleared away and this was second growth.

For half a mile or so they pushed forward in silence. Then Jerry stopped abruptly with a smothered exclamation of surprise. Across their path there lay a ruined wall of thick masonry. Great blocks of stone carved with intricate designs of elephants, weird beasts and men in curious postures had fallen from the top, but the solid portion was still high enough to block their way.

The trail turned sharply to the right, skirting the wall a score of yards to a great square gateway, whose fallen top lay in a mass of stone and rubbish, filling the opening for several feet.

Dick's heart was thumping with excitement as he followed Jerry over the rough heap and gained the inner side of the wall. Before them lay a flat, square courtyard formed of immense blocks of yellowish stone. On either side rose up massive ruined buildings, roofless and open to the sky, their walls covered with carving. Here and there trees had sprung up, the roots upheaving some of the great blocks which formed the courtyard floor. Vines twined about everywhere, but in spite of the masses of vivid green the sunlight lay across the ancient pavement in streaks and patches of golden color.

Yet, welcome as it was, Dick scarcely

noticed it. His eyes were riveted on another gateway in the opposite wall, through which his keyed-up senses seemed to have caught the sound of voices.

A streak of golden green gleaming with a dull iridescence writhed across his path and vanished in a hole. He recognized it as the most venomous tropic reptile in his knowledge, but even that failed to move him. His whole being was centered on that gateway and on what might lie beyond. A moment later he caught up with Jerry and together they crept stealthily to the opening and peered through.

A stretch of uneven stone pavement met their gaze. Beyond, a flight of stone steps, rounded and crumbling with age, led up to a narrow flat platform. Facing them, on a level with the platform, stood a ruined shrine, the delicate lacery of its carving partly shadowed by an immense zapote tree, whose spreading branches swept low over a placid, immovable figure that sat therein.

But the branches were not too low, nor the shadow too deep, to hide the face of the seated Buddha. Calm, almost expressionless it was, yet about the corners of the mouth there lurked the beginnings of a smile—a smile so sinister, so cruel, so full of the unutterable wickedness of ages, that the boy, remembering the details of that hateful nightmare, turned cold. As in that dream, one hand lay upturned in its lap; the other, outstretched, met with a ray of clear sunshine streaming through the branches of the tree. Something it held which gleamed and glittered in the sunlight, something shining, crystal, gorgeously green in hue.

A stifled sob of wonder and of dread burst from the boy's lips. That sinister, smiling thing seemed to hold him spellbound. He scarcely heeded the man in the tattered white who stumbled up the steps, one arm reaching out covetously.

It was Garcia. With a strange feeling of detachment, almost as if he were looking at a play, Dick watched the man run up and gain the platform. There came the briefest pause, as if even this hardened creature had been smitten at the last moment with something of that superstitious terror which had kept the treasure so long inviolate. In that pause the boy's eyes shifted to the bottom of the steps, where Sarak crouched, his tense, upturned face stamped with a look of such horrified suspense that Dick's gaze veered swiftly back toward the impending catastrophe.

Garcia's greedy fingers closed about the emerald. Apparently this did not come away easily from its age-old resting place in the hollow of the Buddha's hand. Garcia jerked at it impatiently.

Suddenly the Buddha's outstretched arm flashed upward and then back again, the emerald gleaming in the rapid movement, a brilliant arc of greenish fire. Garcia flung up both arms and spun around, a scream of fear bursting from his lips. A second later he had vanished.

Jerry gave a sharp cry and bent forward; from the crouching Malay there came a long, sobbing groan.

There in its ruined shrine the placid Buddha sat as it had sat for untold ages. Its outstretched hand still held the glowing emerald; its lips still curved in that sinister, cruel smile. But to Dick's overwrought nerves, the eyes, bent upon the empty platform at its feet, seemed to hold in them a horrid gleam of evil satisfaction.

"He's—he's gone!" gasped Jerry.

Dick nodded. A moment later, moved apparently by the same impulse, the two straightened and moved slowly across the ancient pavement.

Sarak, still huddled at the foot of the steps, turned on them a face which seemed almost gray in hue. His eyes were terrified and his whole body trembled.

"You—you saw?" he whispered, moistening his dry lips.

"Yes. What—what happened?"

The Malay shuddered and made a strange sign with one hand. "The god has claimed him," he muttered in his own tongue. "He takes swift vengeance on the despoiler."

Jerry pursed up his lips; he was rapidly recovering his poise and self-control. "I think not," he said decidedly. "It takes something beside vengeance to wipe a man off the map like that. I wish I knew."

He paused, glancing thoughtfully up at the seated idol. Sarak stared with horrified eyes.

"You must not think to try!" he protested rapidly. "It is death! We must go from this evil place while we may."

Jerry looked down at him curiously. "Why did you bring Garcia here?"

Sarak's face clouded. For a moment anger and chagrin seemed to overcome his fear. "I big fool!" he burst out, this time in English. "I wake. His hand on me. I t'ink him ghost, so go with him. Both run from big flying black t'ing. Find out truth soon, but he have gun, I not'ing. I try lead him wrong. He find out; we fight." He shrugged his shoulders. "Then I t'ink this god, he fix him up, so take him here."

The momentary gleam of satisfaction was swept from his face by a fresh spasm of terror. Again he begged Jerry to hasten from the evil spot, but the latter cut him short."

"Nothing to it," he declared. "That idol hasn't any power in itself to hurt us. It's nothing but a stone image. There's something mightly queer about the whole business and I'm going to understand it before I go."

Dick quite agreed with him. He still hated the sight of that silent, serene figure, but reason had more or less stilled his fears. Also he was intensely curious about the strange fate of Garcia. Sarak was of no use in solving the mystery. They persuaded him to stay, but not one step forward would he take. So in the end the two brothers approached the steps together.

Cautiously, with every sense alert, they mounted them. The masonry was old and worn, but very solid looking. It was only when they paused at the top and faced the Buddha that they made a significant discovery.

Instead of being stone, the platform and the seated image were made of some sort of metal like bronze. The surface was much corroded and most of it was covered with moss and lichen growth. But along all four edges of the platform this moss had been recently torn away, while dislodged bits of it clung loosely about the shoulder of the Buddha's outstretched arm.

"Look, there!" cried Jerry, his eyes sparkling. "I'll bet anything the platform swung down and dropped him in. See how the moss is torn around the edge. There must be a pit or something hollow underneath."

"But what on earth made it drop?"

"The arm, I think. There's probably some arrangement of springs or levers between that and what supports the platform. You noticed how he tugged at the emerald and the way the arm shot up? The stone must be fastened to the hand. I've heard of those contrivances. They found one in a ruined temple in Sumatra, but that let down a big rock that smashed the fellow who discovered it."

Dick's face brightened with comprehension and interest. He realized at once the simple cleverness of the arrangement. To reach the emerald from the front one had to step squarely on the platform. Probably the balance was so perfect that the slightest tug at the outstretched hand was sufficient.

"But what—what's down below?" he asked suddenly. "Do you suppose Garcia



The man in tattered white stumbled up the steps, one arm reaching out cautiously

can be still alive and—and suffocating, or something?"

"I don't know, but I should say not. Those old priests were usually pretty thorough. Ugh! What an awful looking brute he is! Do you notice that sort of leering grin? It's as if he were waiting there like some old spider in a web."

"Don't!" interrupted Dick hastily. "I hate the sight of it. If you've got any plan for getting the emerald, let's go to it."

"There's nothing hard about that if you're warned before hand," smiled Jerry, slipping off his coat. "We'll attack the old beggar from behind. You see, we know that *he* don't move. I believe by holding on to his head I can just reach the emerald, but to make things sure we'll both go over and one hang on the other's belt."

It sounded safe, but Dick did not altogether fancy the undertaking. He was game, of course, but in his heart there still lurked a little canker of uneasiness.

Jerry leaped across the platform first and Dick followed him. Behind the seated Buddha there was a narrow space, cluttered a little by fallen stones, but still quite passable. Reaching the right shoulder of the image, they paused a moment to make arrangements. At the last moment it was decided that Dick, being considerably lighter than his brother, should be the one to secure the treasure, while Jerry held him firmly.

It all seemed ridiculously easy, and yet as the boy climbed up and paused, one arm around the solid bronze neck of the idol, he felt an uncomfortable shiver go over him. Then his eyes fell on the wonderful emerald and his spirits began to rise.

"I'll need a knife," he said, after a moment's scrutiny. "It's fastened to the hand by little gold wires."

Jerry passed him his pocket knife, and leaning far forward, the boy began to saw gingerly at the delicate wires. One was cut through; then two more. Beneath him he could feel the bronze arm yield and quiver a little, but nothing more happened, and at last the final wire was severed. With a quick-drawn breath Dick bent forward to grasp the stone—and then one foot slipped slightly!

With a sudden click the bronze arm shot up past his face, striking him on one shoulder. He gave a cry of horror and dismay, dropped the knife and clutched desperately at the glittering, flying jewel. There was a dull rumbling, a strange, fetid odor assailed him and an instant later he found himself, supported only by Jerry's strong arm, hanging over a shadowy pit that had opened at the Buddha's very feet.

It was the most fleeting glimpse, for the bronze slab swung quickly into place again, but it was enough to turn the boy faint and sick. The shallow well was alive with snakes—rustling, writhing, golden green creatures, whose bite he knew meant almost instant death. And there, amongst that multitude of crawling horrors, the still figure of a man lay face down and motionless.

A moment later Jerry hauled him back and held him upright, one arm around his shoulder, while Dick gasped out a few shaking words of explanation.

"Do you think they were put there—on purpose?" he finished unevenly.

Jerry's face crinkled with disgust. "Quite likely. Those old heathen were more than equal to it. The creatures live for ages, and of course that hole makes a wonderful breeding place for them. But, old man"—— anxiously. "The—the emerald?"

Dick smiled faintly and opened one tight-clenched fist. There in his brown palm lay the great jewel, gleaming, glittering even in the shadows as if it held within itself a spark of glowing fire.

"It's lucky I've played short on the team so long," murmured the boy. "I almost missed it."



A Ballad of Thanksgiving

By Rossiter Johnson

O whither are you bound,
Captain Standish, with your gun,
Is it rabbit, fox or Indian
That is doomed to be undone?
I am going to the forest,
Far across this frozen field,
But the Indian and the fox,
And the cony in the rocks
To no shot from any musket
Will this day have to yield.

'Tis our day of glad thanksgiving
For the mercies of the Lord—
And we feast, with prayer and praises,
On the best the fields afford.
We'll pray for those that shall be here
When we have passed away;
That when they shall take our place,
The descendants of our race,
They may have such cause for thankfulness
As we have found to-day.

THE GREAT BROWN BEARS OF ALASKA

Ivan stands about 51 inches at the shoulders, he weighs about 1,200 pounds, and in his winter suit of long wavy, yellowish-brown hair he is as handsome a bear as we ever knew.





Of all the big and essentially dangerous wild beasts which I know personally, the Alaskan brown bear is the most amiable and good-natured.

The Great Brown Bears of Alaska

By Dr. William T. Hornaday

Director of the New York Zoological Park

THE stupidity of man, the All-Wise, in becoming acquainted with large and very striking new species of wild animals, is both wonderful and humiliating. Consider the cases of the three giraffes of British East Africa, the okapi, the white mountain sheep of Alaska, and the Alaskan brown bears.

We acquired Alaska in 1871, and with it the most magnificent stock of bears possessed by any one country on the round earth. And yet, it is a fact that it was not until 1896 that specimens were collected which enabled Dr. C. Hart Merriam to introduce to the world the largest bears, and the largest carnivorous animals, now inhabiting the earth.

Nor is this bigness and general remarkability confined to a single species. There are several species; and although several pamphlets and many magazine articles have been written about them, and about fifteen specimens have been exhibited in captivity in New York and Washington, the average American citizen has not yet had an opportunity to grasp them and hold on. As a rule, when we try to talk to a stranger about these animals, we are met by a blank look of inquiry.

The brown bears of Alaska form a group quite apart from other bears, and entirely distinct from the grizzlies, blacks and polar. They are distinguished by their enormous size, brown color, massive build, huge heads, high shoulders, and short but very thick claws. An "old heone," with a skull 19 inches long, will weigh anything between 1,000 and 1,200 pounds.

It was the species inhabiting Kadiak Island that first and most effectively came into public notice. Finding it, even as late as 1896, without a place in the system of nature, Dr. Merriam described it, and named it in honor of a Russian naturalist named Middendorff—who should be celebrated because of the great number of Alaskan mammals that he did *not* discover! It seems odd, does it not, that for a century or more the Russian governors, priests, traders, trappers and sailormen, one and all, overlooked the greatest bears on earth. It is still more odd, however, that from 1871 to 1896 many Americans did likewise.

Briefly stated, we may say that the Alaskan brown bears are most numerous in the coastal regions of Alaska from Admiralty Island (near Sitka), swinging around to Bristol Bay, skipping the barren lower valleys of the Kuskokwim and Yukon Rivers, and reappearing northeast of Nome, on the Kobuk River. Its known range embraces the Kadiak and Afognak Islands and the mainland of the Alaska Peninsula. Just how far the brown bears extend into the interior regions of Alaska is at present unknown.

There rises before my mental vision a picture of the saving of my reputation by a brown bear cub.

The Great Brown Bears of Alaska

The Bear Cub to the Rescue

In 1900 I wrought out as best I could a map intended to show the distribution of the brown bears of Alaska, as a group. It was a ticklish job, because of the scarcity of definite information and the abundance of critics. However, as in many such cases, I did my best and accepted the risks. On the strength of the reports of skins of a "red bear" flowing down the Yukon valley to the traders at St. Michael, I made bold to run the alleged "range" up to the lower Yukon River.

All went well until 1912, when, without warning, two of my zoölogical friends (of critical disposition) jumped upon my map, and proceeded to do it violence. One of them said:

"Your brown bear map is wrong. Our friend Dash says that the brown bears inhabit the coast region only, and that none range up to the Yukon. Your map must be changed."

Crestfallen and crushed, but unconvinced, I humbly said:

"I will send you and Dash a blank map of Alaska. Then you two mark out the range that you think is right, and I will put it up."

Just one week from that day, there rolled into the Zoölogical Park a lusty Alaskan brown bear cub nine months old, personally conducted by the self-same agent of the U. S. Bureau of Education who had seen the dead mother weighed in the flesh at Nome, and at the same time had bought her living cub from the bear hunter who achieved the two. The mother weighed 1,100 pounds, and her flesh sold for 15 cents per pound. Both mother and cub came from the *Kobuk River,* 300 miles northeast of Nome, and about 320 miles southwest of Point Barrow, on the Arctic Ocean!

My map was not only saved intact, but it was extended northward far, far beyond the Yukon River. We bought that cub, and he lived and throve. Dr. Merriam says that his name is *Ursus innuitus;* and now he is the big and very handsome bear whose portrait is shown herewith. No one can say what the uncertain future may bring forth in Alaskan brown bears, but for the present we may put him down as Farthest North.

Curious Taste in Food

The Alaskan brown bears that live within reach of the salmon streams of Alaska are confirmed fish eaters. In spring and summer, when the salmon enter the rivers from the sea, and swim upward to the highest available gravel beds to spawn, the bears come down from their mountain homes to catch salmon with the hooks that nature gave them.

And these bears have still another strange trait in feeding. When conditions are quite right for it, they devour quantities of tender green grass in the marshes of the low-lying valleys that border the salmon streams. I do not know of any other wild bear save the grizzly that ever feeds upon grass, even when it is youngest and tenderest, but in captivity almost any bear may be tempted to eat a little fresh and tender bluegrass.

The big brown bears are truly mountain bears, and they are most numerous in the high, treeless ranges that rise so quickly and so boldly along the Alaskan coast. To hunt them successfully in their high mountain fastnesses is a well-nigh impossible task. The white hunter achieves success chiefly by strategy. His native guide knows the lay of the land and the habits of the bears, and the real effort is to ambush or stalk the bear on his feeding grounds, or on his way to them. Owing to the treeless and wide-open character of the mountainsides, a big bear is visible a long way, and the hunt is of necessity carried out on a grand scale.

The Great Brown Bears of Alaska

Many thrilling stories of bear hunting have come out of Alaska, and a few that are harrowing. The native bear hunters firmly believe—and they act upon it—that a well-delivered yell, of raucous quality and enormous volume, will cause a charging bear to stop short and stand erect on his hind legs while he takes a look. An action of that kind enables even an unskilled hunter to fire a fatal shot.

A white hunter armed with a thoroughly up-to-date, high-power repeating rifle, nearly always gets his bear, and without accident. Against such a combination of native strategy, deadly weapon and white-man accuracy,—the wild beast can hardly escape. But native bear hunters armed with imperfect weapons do not always come off so well.

Mouthed by a Bear—Not Killed

About eight years ago there occurred a bear "accident" in Alaska that stands almost without a parallel, so far as bear records are concerned. A captain of a small sea-going vessel went back into some coastal mountains alone, for a day's hunting. Very unexpectedly he was attacked by a large bear, which in a trice completely mastered him. Then the bear proceeded to bite his flesh, in a systematic manner. Without breaking his bones, and without tearing open an artery, the bear mouthed him from head to foot, deliberately, and at horrible leisure.

Finally the bear tired of the sport and left without having killed his victim.

The unfortunate Captain was about seven miles from the coast, and he knew that he must work himself within reach of the settlement or die. Being utterly unable to walk, he started to crawl, on his hands and knees, and crawled, hour after hour, until at last he covered about five miles, and came within reach of human help. As quickly as it could be done, he was taken to the nearest hospital, and although his condition seemed hopeless, eventually he recovered from all his wounds.

At this moment a bear controversy is on between certain of the people of Alaska and the U. S. Department of Agriculture. The cattle-raisers of Kadiak Island (and possibly there are others) pointedly claim that the big brown bears are killing their cattle to a serious extent, and interfering with their industry. For these two reasons they demand that the protective laws be taken off the bears, in order that the bears may be killed by fur hunters for their hides, to the incidental relief of the cattle industry.

Under the terms of the present Alaskan game act, the Secretary of Agriculture is given the power to protect, for any length of time, any species of wild mammal or bird that seems to be in danger of extermination. Under this authority, the Secretary has decided that he is not justified in permitting hide hunters to exterminate the finest carnivorous mammals of the whole Western Hemisphere for hides worth $25 each, or even less. The Secretary holds that sportsmen have some rights in the taking of the remaining big game of North America, and therefore the hide hunters are forbidden to kill unrestrictedly the Alaskan brown bear for its skin. The extinction of the American bison in its wild state, by hide hunters, is pointed out as an episode which must not be reënacted.

From this decision the fur-hunters and the cattle-raisers of Alaska now vigorously dissent. That the actual cattle-raisers are entitled to adequate relief from bear depredations, all fair-minded men will agree; but we cannot believe that in order to protect that very young infant-industry it is necessary to remove protection from all the brown bears of Alaska, and permit the hide hunters to exterminate them, —as they easily could and would do in a short time.

The Great Brown Bears of Alaska

An Amiable Monster

Of all the big and essentially dangerous wild beasts which I know personally, the Alaskan brown bear is the most amiable and good-natured. Give him comfortable quarters, sufficient room for exercise, an ever-ready bathing-pool, a dry den and sufficient food for his hunger, and you will have a model bear. The idea that an animal thus established is a "miserable prisoner" and a "suffering captive" is all bosh! I mention it because just now a slight effort is being made, by a few persons of feeble intellect, to discredit all zoölogical parks.

I wish I had in my daily life one-half as much fun, and as little worry of mind, as our bears have in theirs. The only exceptions are the two polars that were caught when fully adult. I do not believe in catching and caging full-grown animals; for some of them never become reconciled to captivity. Fortunately such captures are very, very rare,—not more than five per cent of the whole number of zoo animals.

Except the two polars, our bears are not only contented in their captivity, but they are satisfied and happy. They wrestle, and run, and play until they grow so heavy that antics are no longer possible; but even then the evidences of satisfaction with life are unmistakable.

At our Bear Dens—which have held at one time 17 species—our star is old *Ivan,* the largest carnivorous animal in captivity. He was caught by Belmore Browne, the artist-explorer of Mount McKinley, at Port Moeller Bay, east coast of the Alaskan Peninsula, on May 24, 1903. He shot Ivan's mother and carried out her cub in his blanket. Now Ivan stands about 51 inches at the shoulders, he weighs about 1,200 pounds, and in his winter suit of long wavy, yellowish-brown hair he is as handsome a bear as we ever knew. Even the most indifferent visitor notes that his bulk is enormous, and that his proportions make him a model for the artist or sculptor. The commanding portrait of him that Carl Rungius painted last year for the Zoölogical Society is a masterpiece, and well worthy of the finest bear in captivity.

Old Ivan is as good-natured and reliable as he is big and handsome. If he has a mean trait, we do not know it. It would not be wise for a keeper to come within his grasping power, because with the kindest intentions in the world he would want to play with a man in a way that could easily prove fatal to the party of the second part.

Ivan has for a cage-mate and companion a female bald-faced grizzly bear that is about one-half his size and strength; but never does Ivan abuse her, or rob her of her food. He plays fair. Each day the two bear keepers, armed with a broom, pail, shovel and an assortment of life-preserving pick-handles, enter Ivan's cage to do the housework. As the lock rattles, Ivan comes to attention. As the first keeper steps in he says, firmly:

"Go on up, Ivan. Get out of here!"

Straightway the great beast rises and ambles off to the rear, and with striking play of mighty limbs and paws scrambles up the rocks to the level top of his sleeping dens. That is his spot when the cage below is being cleaned, and he knows it well. From that high point he is merely an interested but passive spectator of the domestic drama going on below. If he grows weary and makes a move to descend too soon, a keeper sternly says, "Ivan!" and down he sits again.

A Bear Fight Almost to the Death

Once we saw Ivan fight, with a bear of his own size (at that time). It was a fearsome sight. It came about through a mix-up of cage-mates. I cannot recall why a change was made, but at all events the

female cage-mate of Admiral,—another big Alaskan brown bear abiding in the adjoining cage,—was temporarily shifted from him into Ivan's den.

Admiral felt that that was not a square deal and it made him furious. At once he set to work to tear his way through the steel partition and get into Ivan's cage. I reached the scene while he was in the very act of finishing the job.

The partition was made of flat steel bars, woven closely together in a basket pattern, and set into heavy steel frames that were bolted into place. The ends of the flat bars were fastened by bending them over while hot; and everybody was quite sure that those panels were strong enough to hold elephants.

Admiral went to work with his great strength and his enormous claws to pull one of those woven bar panels out of its frame, and thus make a hole in the partition that would let him through. It seems impossible; *but he did it!* He did what a steam roller could not have done. I saw him finish tearing that steel basket work out of its frame, smash it down and rush over it through the opening and into the next den.

And then in an instant Admiral and Ivan were in combat.

At that time those two bears were of the same size and weight, and evenly matched. They fought strictly head to head, and mouth to mouth. Not once did either of the fighters swerve by a foot and expose his body to attack. Round and round they raged, and the female grizzly shrank off in a corner, terrified. Presently the two fighters reared on their hind legs, each holding the other by a cheek, and in silence they waltzed and chewed.

And then the keepers had their chance. Carrying their arms full of hickory pick-handles, each one weighing about five pounds, they slipped in at the front gate, and took positions. They yelled at those bears as if they meant to tear them to pieces, and they slammed those pick-handles into them until they won. The hickory hurricane was too much to endure, and the bears let go and fell apart. Then all attention,—and pick-handles,—was concentrated on Admiral, who soon retired through the hole he had made into his own den; and the fight was over.

All the Alaskan brown bears look very much alike. To be more exact, they strongly show the distinguishing characteristics of their group. Some are a light brown, some are dark brown, and some have dark legs and light bodies. If I should try to name even the best known species, and give their characteristics, no one would remember them for two hours. It is not amiss, however, to give here the names and places of the species that are at this moment living in the Zoölogical Park collection; and in doing so I will begin with the most southerly species we have, and work northward.

ADMIRALTY BEAR, *Ursus eulophus,* Admiralty Island.
YAKUTAT BEAR, *Ursus dalli,* Yakutat Bay.
KADIAK BEAR, *Ursus middendorffi,* Kadiak Island.
PENINSULA BEAR, *Ursus dalli gyas,* Alaska Peninsular.
KOBUK BEAR, *Ursus innuitus,* Kobuk River.

Last year a startling thing happened. For a full quarter of a century, Dr. Merriam has been collecting bear skulls and studying North American bears. And then, all of a sudden, out came from him an innocent-looking little pamphlet describing and naming *eighty-six species of Alaskan brown bears and grizzly bears!* And Dr. Merriam declares that the skulls before him left him nothing else to do.

Cherokee Secrets About Bows and Arrows

By R. Roger Eubanks

I AM a Cherokee Indian, and though I am only two score years of age, great changes have taken place in my country and among my people since my boyhood.

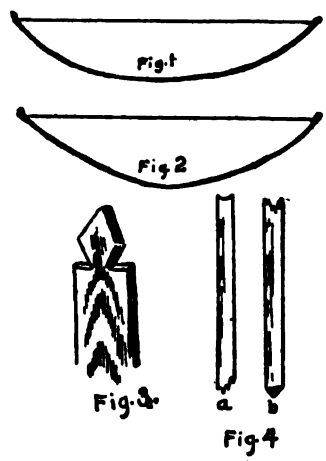
I love to read of the Boy Scouts and their expeditions in the woods—their insight in the arts of woodcraft and campcraft—their knowledge of wild life, trail marks and signaling. It is all so Indian and it brings sweet memories of boyhood days.

There is one companion out of which we Cherokee boys had lots of enjoyment and I see no reason why the Boy Scout should not also enjoy it; it was our faithful bow.

If I remember, Longfellow had Hiawatha make his bow of ash. The northern tribes may have used ash, but the Cherokees invariably used either black locust or bois-darc.

To make a bow, select a piece of timber as straight of grain and as free from knots as possible. The back of the bow should be the outer surface with only the bark removed, and in the shaping, the back should not be cut at all, for when the grain is cut in the back the bow will break. The length, width and thickness depend upon the strength of the one who is to use it. I should judge that for the average scout, a bow 5½ ft. long with a width of 1¾ in. in the center tapering to 1 in. at the ends and with a thickness of ⅜ in. in the center, tapering to ¼ in. or a little less at the ends, would be about the right dimensions.

A large enough piece of timber should be used so that when the bow is finished it will be flat or with a slightly rounding back. When the shaping is nearing completion the uniformity of the bend should be tested from time to time by bending



it across the knee and then cutting out the places that are too stiff. It should bend as in Fig. 1 rather than as in Fig. 2. After the proper shape and curvature is acquired, the ends should be notched as in Fig. 3 and the whole polished with glass or sandpaper.

To make the string, take a large squirrel skin and remove the hair. The hair can be removed by simply plucking if this

is done immediately after the animal is killed and is yet warm, or the skin may be soaked in wet ashes over night, provided the ashes are not too strong, and the hair removed with ease. Next stretch the skin and tack it flat and taut to a board to dry. Then, with a pair of compasses, describe and cut the largest possible circular piece,

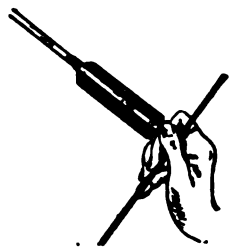


Fig. 7.

and, beginning at the edge, cut this into a string ⅛ in. in width. Much depends upon the uniformity of width and the smoothness of this strand. The best way to preserve this uniformity and smoothness is to cut a groove in the edge of a board to such a depth that the string need only be started and then the pelt can be placed in the groove and by holding a sharp knife blade across the groove in the right position and pulling the string, already started, through the groove under the blade, the pelt will revolve against the blade and the string will be cut perfectly.

This long string is then thoroughly soaked in water, after which it is doubled to make a string of six strands. A loop is formed at one end by simply dividing the strands and by this it is hung to a spike or strong hook driven in a wall or a tree. The strands are then twisted together and a weight of about thirty pounds is attached to the other end. When it is dry you will have a string that is pliant but exceedingly strong.

To string the bow, place the loop in the notch of one end of the bow, place this end on the ground, place the knee in the center of the bow and bring the other end up, bending to the desired curvature, and wrap and tie with any permanent knot scouts are proficient in tying, leaving no dangling end of string. When the bow is not in use, bend slightly and slip the loop off the shoulders of the notch.

Longfellow had Hiawatha make arrows of oak. I see no reason why good arrows could not be made of oak, but we Cherokees used black locust or hickory. A straight grain is especially essential in the selection of timber for arrows. Take a smooth, straight grained piece of timber, cut it in lengths a little longer than you wish the arrows to be and split into pieces about 2 inches in diameter and with a draw-knife or a pocket-knife work down until they are perfectly round and about ⅜ in. in diameter. The length of the arrow depends upon the individual and the use for which it is intended; for general purposes, I think about 3 ft. a good length.

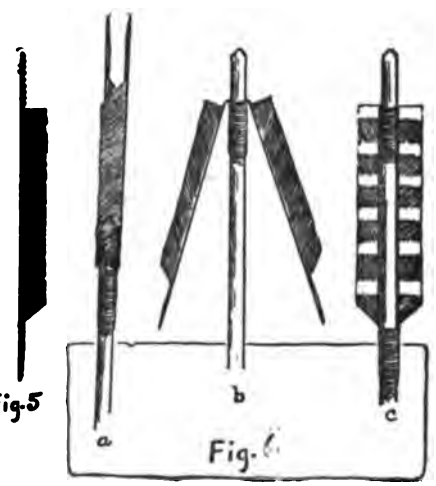


Fig. 5

Fig. 6.

The notch should be shallow and rounding as *a* in Fig. 4 and should not be sharpened more than *b* in Fig. 4.

Most any kind of feathers which are long and broad enough will serve except duck feathers, which are too brittle. We use hawk, eagle and turkey feathers. Split the stem and scrape out all pith so that it

will lie as close to arrow as possible—shape as in Fig. 5, one for each side of the arrow, of exact form and weight and tie on as in *a, b, c* in Fig. 6. For attaching feathers to arows we used deer sinew, taking a piece about 1-16 in. wide with pointed ends, wetting it with saliva and wrapping, taking care that a smooth surface is maintained and that the ends are tightly stuck. Of course, deer sinew is now out of the question, but I am sure a substitute can be made of one of the many excellent adhesive tapes on the market.

Feathering an arrow requires much the same judgment and practice as putting a tail on a kite.

In shooting, the exact center of the bow should be used. This center can be determined and indicated by a mark of some kind. Grasp the arrow between the thumb and second joint of the index finger and hook the ends of the remaining fingers on the string to aid in drawing the bow (see Fig. 7). It will be noticed that one has more strength in the arm held perpendicularly over the head than when held horizontally, therefore, when it is desired to shoot with great force, hold the bow with the arm held perpendicularly, draw, then swing into position and shoot.

A favorite amusement with the Cherokees is "Cornstalk Shooting." Two piles of corn stalks are placed about one hundred yards apart. They are piled between stakes so that they present a wall facing each other, ten stalks high. A team of marksmen stands at the side of each pile and shoots, in turn, at the stalks of the opposing team. Piercing the bottom stalk scores 10, the next 9 and so on to the top. The accuracy of the marksmanship displayed is often remarkable—the stack is seldom missed in an afternoon's contest.

The most accurate bow marksman of my acquaintance was an aged full-blood whose name was Ah-kee-lah-nee-gah. The whites gave him the name of Peter. He then became Peter Ah-kee-lah-nee-gah and to the whites and mixed breeds he was "Uncle Peter Kill-a-nigger." He was dwarfish and stooped, with a pile of wrinkles for a face and a voice that rumbled like distant thunder. He was quaint, kind and affable and, despite the legend that he acquired his name killing negroes, he was the idol of every boy who knew him.

One day while two other boys and I were busily walking around a tall hickory tree in the very top of which was a small gray squirrel—giving orders to each other, shaking bushes and now and then trying a shot, which because of the extreme height of the tree and the small size of the squirrel, was to us sheer recklessness, Uncle Peter, with his bow and arrows, came upon us, and after he took in the situation we tauntingly asked him to try a shot. Instead of appearing interested in the squirrel he seemed to be engaged in locating the position of things on the ground and then he calmly said: "Hold your dogs and I'll shoot 'im out for you."

When I wanted to know what the dogs had to do with his ability to shoot a squirrel out of the topmost branch of a hickory tree he explained that the squirrel would be sticking on his arrow, and in the scuffle of the dogs over the squirrel his arrow would be broken.

We did not have to wait long to see the wisdom of this precaution, for no sooner were the dogs in leash than an arrow whistled, a faint thud was heard high over our heads, and then the squirrel lay at our feet pierced through the shoulders.



Charms of Winter

By Charles Olive

What joy, what sport to hiking go
Upon the silver-gleaming snow,
When soft and pure deep it lies,
Just shaken from the woolly skies,
Whence flakes both big and small
Still tumble, glide and fall,
Delighting, kissing all,
While bracing west winds rush and blow.

The woods, which fall made dark and bare,
Are shining now, and rich and fair,
Adorned with gems of snow and rime,
The foliage of winter time;
And like a misty sea
Is every field and lea,
Where it is fun to be
And face the snow whirls dancing there.

PEARY AT THE NORTH POLE



Peary's North Pole Sledge



Robert E. Peary,
Discoverer of the North Pole



Nalecaksoah,
King of
Peary's
Eskimo Dogs



Marvin with Team of Eskimo Dogs



Peary's Ship "The Roosevelt," Alongside a Glacier
Near Cape York



The Stars and Stripes at the North Pole, April 6,
1909

The Bold Dream That at Last Came True

By Rear-Admiral Robert E. Peary, U. S. N.

How Man and Dog Won the Great Battle with the Cold at the Top of the World

The goal is won. While desolation lies
About the ageless axle of the earth;
While robbed of warmth, the never-setting sun
Circles above a world where life is not.

LAMBERT R. THOMAS.

April 6, 1909. A bitter, brilliant day, the temperature 65° below the freezing point.

Wide stretching ice fields, covering an ocean two miles in depth, a sky of blue, and a blinding sun sweeping slowly round the heavens, parallel with the horizon.

A region into which in all the ages since the earth was born no human being had ever penetrated. The North Pole. The splendid, glittering, frozen prize of centuries.

Six fur-clad figures, representing three great races, the White, the Yellow, the Black; five groups of splendid Eskimo dogs; five long, narrow, curved sledges; two little beehive-shaped snow huts in the lee of some upheaved ice blocks; and on the highest pinnacle of ice a flag waving gently in the breeze—The Stars and Stripes. Your flag and mine.

Never shall I forget it; and I don't want you to, for it was the result of dreaming a dream, then working for the realization of the dream through twenty-three long years, with every energy of brain and soul and body concentrated on the one subject.

Now let me tell you briefly the story.

A LITTLE less than 400 years ago, in 1527, England sent out the first recorded expedition in search of the North Pole. Eighty years later, in 1607, Henry Hudson made his historic voyage. From that time on for 275 years Great Britain held the record, slowly pushing the record up to 83 degrees 20 minutes, north latitude.

Then, in 1882, the lead came to the United States. Thirteen years later Norway went to the front, and in 1900 a member of the Royal house of Italy, the Duke of the Abruzzi, grasped the blue ribbon. Six years later the United States took the lead again, with a record of 87 degrees 6 minutes.

So matters stood in the spring of 1908, when the Peary Arctic Club, of New York City, was fitting out its last North Polar expedition.

This club is an organization made up of men prominent in business and social circles, some of them of international reputation.

The expedition left New York on July 6, 1908, in the steamer *Roosevelt,* built by the Club, and commanded by Captain Robert A. Bartlett; was reviewed by President Roosevelt, and steamed northward, arriving at Cape York, North Greenland, August 1.

Eskimos, dogs, furs, etc., were obtained in the Eskimo country, and on August 18

the *Roosevelt* steamed north through the narrow, ice-encumbered channels forming the American gateway to the Pole.

Winter quarters at Cape Sheridan, on the north coast of Grant Land, 450 miles from the Pole, were reached September 5. Here the expedition wintered, hunting, making equipment, and transporting supplies westward to Cape Columbia.

The first division of the Northern sledge party left the *Roosevelt* February 15, 1909, the last division February 22. The entire sledge party left Cape Columbia, heading due north, March 1, the expedition comprising twenty-four men, nineteen sledges, one hundred and thirty-three dogs.

Four successive supporting parties, in command of McMillan, Borup, Marvin and Bartlett, returned at various intervals, the last, in command of Bartlett, from the 88th parallel.

The main party, under my command, six men, five sledges, forty dogs, pushed forward by forced marches to the Pole itself, where it arrived on April 6, 1909.

Here, in the midst of great fields of heavy ice, covering an ocean two miles or more in depth, with the sun circling round the sky day after day without setting, the Stars and Stripes were planted, and a record left with a piece of the flag.

Returning, we left the Pole April 7, and after a series of forced marches regained Cape Columbia April 23 and the *Roosevelt* April 27.

July 18 the *Roosevelt* started south, and September 5 reached the wireless station at Indian Harbor, Labrador, whence the message, "Stars and Stripes nailed to North Pole," was sent flashing over the world.

The discovery of the North Pole stands for the inevitable victory of persistence, experience, endurance, over all obstacles.

It is the cap and climax, the *finish*, the closing of the book, on 400 years of history of Arctic exploration.

The great lesson of the conquest is the infinite value of persistence and sound physique.

The key to final success was *experience*.

Every member of the party was fully imbued with the spirit of two mottoes: *"inveniat viam aut faciat"* (Find a way or make one), and, "Hope for the best, but be prepared for the worst."

Although this is the age of science, of invention, of wonderful progress, it is interesting to note that the North Pole was won in the last stage (as was also the South Pole) by the two first machines on earth, the human organism and the animal organism, man and the Eskimo dog, driven through such a chaos of natural obstacles as are to be found nowhere else on the face of the globe; and winning by pure insistence of the perfect man body, elastic, adjustable, animated and driven by that God-given flame of intelligence which we call the brain.

Boys, guard and cherish your God-given bodies as a priceless heritage. Watch them and keep them clean and in perfect adjustment. Don't let the bearings get hot. Then with their normal running they will give you health and happiness, and win you a place in the world, and when the supreme moment comes, as it will to some of you, when everything of ambition and success rests in a supreme and sustained effort, then you can pull the throttle wide open, and let them drive you to your prize ahead of all competitors.

Hold fast to the creed of my dear friend, George Borup: "Clear brain, clean body, persistence, a heart that will not accept 'no,' and you can win any prize."

Our remedies oft in ourselves do lie,
Which we ascribe to heaven. The fated sky
Gives us free scope; only doth backward pull
Our slow designs when we ourselves are dull.
—ALL'S WELL THAT ENDS WELL.

The Uniform of the Smile

By Colin H. Livingstone

President of the Boy Scouts of America

SCOUTS, you all know that you have taken the oath and promised to obey the twelve laws of Scouting. These pledges were made in the presence of witnesses—your Scoutmaster and brother scouts. Those few minutes of your life were momentous to you and to the lives of all those with whom you were to have dealings at home, at school, at work or at play, at college and in business, from that time and always. The eyes of your fellow scouts are upon you. The eyes of a severe and critical world watch you, expecting and hoping for the fulfillment of the great things you have promised to be and to do.

Now what does this promise really mean? First, it means you have become a BOY SCOUT. What does that mean? It means that you have started out to be a LEADER—one who finds and shows the way to others, one whose rules of life shine forth in deeds of helpfulness, of kindness, of bravery and of courage wherever you happen to be. Whether among the very young, or the old and feeble, or the rich or the poor, at the home fireside or with strangers on the highways and in public places, you have made your promise for life not for a day, or a week or a year, not while you are on duty with your comrades, but for all time. You have taken an oath to build in yourself a character that will withstand the temptations of evil doing, and that will shine as an example of good citizenship.

A scout has two uniforms, one he seldom doffs. The other he ofttimes dons. The first is a clean and smiling face, the evidence of a clear conscience and a healthy body, a wonderful invitation to every one around to look and be happy and cheerfully to do their bit. This smile is subtle and far-reaching in its influence. It is a sign of self-conquest, an emblem of leadership, compelling attention in its radiation of cheerfulness. Scouts, this uniform is yours, not made in a loom but made in the heart and worn to make the world brighter and better and worn to show every one that in your mind and life there is hope, happiness, kindness and the courage to look, to say and to act the pledges you made at the moment you promised to be a scout, to be a leader.

Go forth, Scouts, with this smile, to win for your plan of life others who will smile with you. Carry it like an armor against temptations, discouragements and difficulties. It will put you on the upward road to success. It will win for you in many a struggle, in many a dark hour. More than all it make you a leader by helping others to win. It will be a service, a constant good turn. Never take off the Uniform of the Smile.

Then there is the official uniform of the scout which carries to every one who sees it worn the full meaning of the tremendous promises you have made when you stood up and repeated in the presence of witnessing scouts the Oath and Law of Scouting as your code of honor and duty to your *God* and your *Country*, and to *other* people at all times. When you first

The Uniform of the Smile

donned this uniform you announced to the world that you intended to be a *leader* and to show forth in deed and word forever after that no matter what befell; you had pledged yourself to be *Trustworthy, Loyal, Helpful, Friendly, Courteous, Kind, Obedient, Cheerful, Thrifty, Brave, Clean and Reverent.*

The day you made these promises was one of the most solemn and one of the greatest days in your life. You put behind you and out of your life many things in which you once sought pleasure and said to the world, "I am going to make my life useful to the people I live among and LEAD others to do as I have promised to do." You became a Leader. You wear this uniform of Scouting with its emblems and badges as a declaration to every one everywhere and always that you are ready, willing and happy to lend a helping hand to any one in need, to be of service to your fellows no matter who they may be, or what self-denial or sacrifice you make on your own account.

You are a Leader. The world about—your world—expects the great things of you that you have promised to be and to do. They see your uniform. They want to trust you. They are glad to know of the courage in your heart, the manly courage of leadership you showed when on YOUR HONOR you promised to keep yourself PHYSICALLY STRONG, MENTALLY AWAKE, and MORALLY STRAIGHT. Only these conditions of mind and body can give to you the needed power to live up to your pledges.

The people about you know what you have undertaken to do. They watch you with anxiety, with hope in their hearts that you will win in the fight you have entered upon, for it is a fight and a good stiff one at that to live up to your plan of unselfish service to others. Nothing is worth while winning and keeping in life that does not cause an effort—a struggle—a fight against trials and difficulties. People are glad at your victories, your little ones over yourself and your big ones for your village, your town or your country.

Scouts, see to it that this uniform is, everywhere, respected and honored on account of what the boy does and says who lives within it. Don't dishonor it by failure. Don't forget that when you put it on you become a Leader by the example of your life. Other boys are watching you—scouts that are and scouts that may be. Fail them not! If you fail, we all fail. The great plan of scouting fails. The burden is upon you to make all boys throughout the land wish to be scouts.

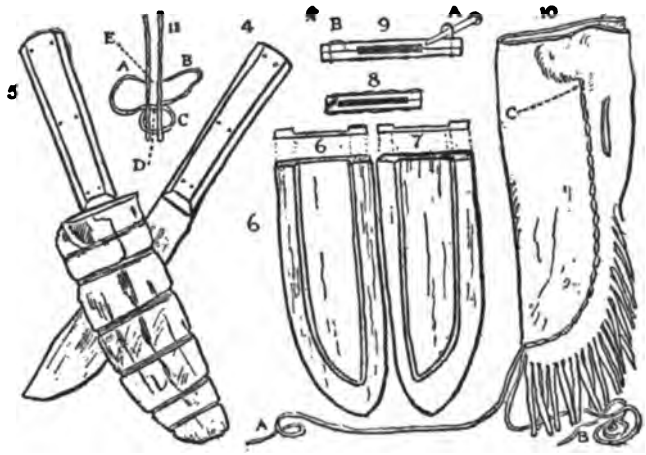
Your Scoutmasters are all volunteers giving up freely their leisure and lives to serve and to help you by their leadership to go straight, to be leaders yourselves in a plan of life that is worth while, in a land that is worth all the service and sacrifice we can give.

Go forth, scouts, enthused by your opportunities. BE LEADERS in a world that is looking to open a great Brotherhood of Boys as the hope of humanity. Make nineteen hundred and twenty the greatest year for boys and for Scouting since the world began. America—your country—calls you to leadership.

Scouts! Be Prepared! Fail not!

How to Make a Wetzel Knife Scabbard

By Dan Beard



ON the old frontier there were no blacksmith shops, no tanneries, no stores of any sort, all utensils were either made by the pioneer or purchased from some wandering Indian trader.

But money was almost an unknown article among the hardy Buckskins, hence they either traded pelts for goods or went without, consequently their ingenuity and skill was highly developed and they sometimes even made their own guns and knives.

The famous Bowie Knife was not invented by Colonel Bowie but was made by a whitesmith from Philadelphia for the doughty Colonel and adopted by the latter whose name the weapon still bears. Colonel Bowie, by the way, did give the smith a pattern drawn on brown paper, but when the knives were finished he chose the design made by the smith.

The Lewis Wetzel knife was not invented by that long-haired Indian slayer, but was purchased at the ten-cent store and named after the famous Scout by the boys of Troop No. 1, of Pike County, Pa. Who was Lewis Wetzel? you ask. Well, he was one of the most picturesque of the old frontiersmen, a striking and unique personality, a real wilderness man, an athlete, supple and powerful, quick and agile as a cat, garbed in fringed buckskin clothes and bearskin hat, with long hair almost reaching to the ground. Like most of the other buckskin knights he also was captured by the Indians when he was a barefoot boy. Lewis and his brother were playing around the yard of their father's log cabin when he saw a rifle peeking at him from around the corncrib. With the instinct of a wild animal he sprang backwards just as the rifle cracked and the bullet tore a gash clear across his little chest; then the two Indians rushed out and captured the boys. In spite of the pain of the wound, the little fellow kept pace with his captors and never whimpered but stoically trudged along the trail.

While the Indians slept, Lewis awoke his brother and they took to the tall timber, but the briars and sticks cut their tough little feet, so Lewis left his brother, crept back to the Indian camp and took the Indians' moccasins and again started on his way; then he bethought him that they needed arms and once more he turned

How to Make a Wetzel Knife Scabbard

back, secured the redmen's guns, and made a final break for home, where after some startling adventures they safely arrived.

Wetzel grew up to be a great Indian fighter, and, after his father was slain by a savage, became an Indian hater, believing in that ferocious saying that "the only good Indian is a dead Indian." Wetzel hunted Indians thereafter as if they were wolves and not human beings and was very successful in his hunts, seldom returning from the woods without a number of scalps. That in itself was not considered brutal in those days when even authorities used to pay a bounty on Indian scalps just as they do now, in some places, for wolf scalps.

Wetzel was a great hunter and hunted with Simon Kenton and other great woodsmen, but neither Simon Kenton nor Daniel Boone were Indian haters such as he.

One day at Wheeling, Wetzel met a man named Mills who, in fleeing from the Indians, had left his horse at a place called Indian Spring. Mills, without much trouble, induced Wetzel to go back after the animal. It was a dangerous undertaking, but the difference between Mills and Wetzel seemed to be that Wetzel was perfectly aware of the danger and Mills thought of nothing but his horse, the consequence being that when Mills saw his horse hitched to a tree, in spite of Wetzel's warning, ran out to get it, and was shot by the concealed foe. There were four Indians who ran after Wetzel but he was a champion sprinter and ran like a deer. Nevertheless, the four Indians in pursuit drew so near that Wetzel, fearing the tomahawk, turned and shot one of his pursuers. He had filled his mouth full of loose bullets and as he ran he poured the powder from his flask into his rifle, spit in a bullet, struck the stock of his gun a blow which shook the powder out of the touch hole into the pan of his flint lock and he was ready for the next Indian. In this manner he loaded as he ran and killed three of his pursuers; the fourth Indian then gave up the chase with the remark, "Him gun always loaded," and again the agile, long-haired, buckskin-clad backwoodsman reached Wheeling in safety with his luxuriant locks still growing on his own head.

In these days of smokeless powder and noiseless guns such a thing would be easy for any good runner, but in the days of the muzzle-loading flint-locks it was a wonderful feat.

The Lewis Wetzel Knife To-day

Leather is very expensive, and besides that leather is not always obtainable when one is in the woods, yet every scout should possess a hunting knife and a scabbard. When we say possess a hunting knife we do not mean one of those sharp-pointed murderous weapons which most boys consider necessary, but a knife which is handy to use in camp with which to cut bacon, slice bread and split small sticks for kindling wood, not a knife with which to fight, or even a knife to use in bleeding game; we do not kill big game on our hikes, we do not fight Indians on our hikes, we take no scalps on our hikes, but all of us like to eat on our hikes and a knife and sheath at our belt is very handy with which to prepare food.

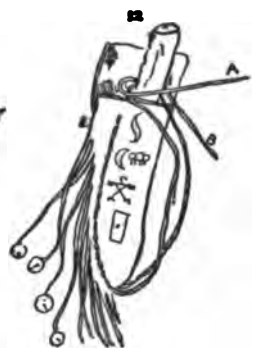
One can buy a knife like the one represented in Fig. 4 at any ten-cent store, then one must make a sheath for it, and if leather is too expensive and there are no old leggins from which to cut out a scabbard, a good scabbard can be made of the bark of a tree.

To illustrate this the Chief has pulled a piece of bark from a dead chestnut tree, Fig. 1. Fig. 2 shows the inside of this piece of bark. Fig. 3 shows how to strip off the inside bark with which to make string, rope, binding or thread. Fig. 5

How to Make a Wetzel Knife Scabbard

shows a knife from the ten-cent store with a scabbard made from the bark of a chestnut tree, securely bound together with fibers from the same tree. Figs. 6 and 7 show the inside pieces of the bark with a space cut out for the blade of a knife. Fig. 8 shows the top of the scabbard after the two pieces are fitted together.

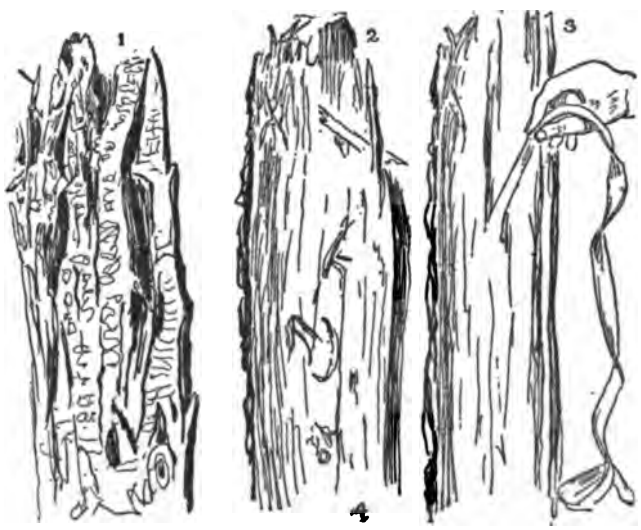




If we propose to cover this wooden scabbard with leather, canvas or birch bark, we can make a very neat piece of work by using ordinary pins, Fig. 9, with which to tack the two pieces of the wooden scabbard together. After the pins are driven in with their points protruding from the opposite side, then take a large nail, hold it alongside of a pin, Fig. 9-A, and hammer the pin until it bends in a loop over the nail, then the pin may be driven into the scabbard, Fig. 9-B, and thus clinched so as to not only be firm and secure, but to look neat and workmanlike.

Then if we are fortunate enough to have a piece of good leather we can make an outside scabbard, Fig. 10, with which to cover the wooden one. To do this we begin at the point C, Fig. 10, and sew down to the toe of the scabbard. Fig. 11 shows the manner in which the stitches are made. Beginning at C we run the two ends of the thong A and B through the holes punched for that purpose at D. You note we run both ends through the same holes, then pull them out on each side of the leather and again run them through the holes at E, and so on down to the toe of the scabbard where the two ends, A and B, are allowed to dangle, Figs. 10 and 11, not for the purpose of ornament but so that they may be brought up, Fig. 12, and wrapped around the handle of the knife, as they are in Fig. 12; then drawn tight and tied with a square knot, thus securing the knife in the scabbard so that it will not be lost when one is stooping or running.

The wooden scabbard, Figs. 6, 7, 8 and 9, may be cut from an old shingle, or a thin piece of wood of any kind, and it may be covered with birch bark, but the birch bark should be sewed with fiber thread, twine or string, made from the inner bark of the chestnut, cedar or the outer bark of milkweed, which one may make by twisting the two ends in the opposite direction, then bringing the two ends together and allowing the fiber to twist itself together into a thread, cord or rope of double the thickness of the one first twisted.



Or one may use the rootlets of tamarack growing in the swamp, which when taken out of the moist earth are as pliable

as ordinary string. To make a homemade scabbard of this kind one must make it look like the real thing, everything about it must be "woodsy"; we do not want to mix up manufactured articles from town with the pure, aromatic birch bark, or the rugged bark of other trees; articles manufactured of such material should be sewed or stitched with material one can find in the woods, because sentiment and art are two things to be observed in all our work. Beads and brass bells are made for trade with savages and hence are not out of place.

Take the stalk of any of the common milkweeds and break it, and you will find that the outer bark does not break and may be stripped off into silk-like threads, which can be twisted together and used as thread with which to sew ditty bags, knife scabbards, etc.

No one showed the Chief how to use the milkweed, that is, no human being showed him, but there is a little orange and black woodcrafter that builds its nest of string and yarn, when he can find it, in the shade trees of the village streets, but in the wilderness, like the rest of us, he must use material he finds in the woods, and it is there that the Chief discovered that the Baltimore oriole was using milkweed fibers with which to build its hanging nest.

The Chief also discovered that the vireo was using the inner bark of the chestnut with which to make its cup shaped nest, and the Chief immediately began to experiment with the inner bark of the chestnut, and with it he made a rope the size of an ordinary clothesline, which could support him without danger of breaking, and ever since then he has used this bark for string or rope wherever chestnut trees were handy.

Not only are these things good with which to sew, and with which to do up bundles, but one may also use them for ropes with which to bind together the logs of a raft, for a boat or a canoe, or as material with which to braid a belt, or as fiber to be used as raffia in basket making.

The Call of the Out-of-Doors

By the Cave Scout

Paling of stars in the eastern sky,
Stirring of birds in the trees,
Uneasy movement where low mists lie,
Wood-smoke scent on the breeze.

Glimpses of khaki in forest aisles,
Flashes of brown in the vales,
Chirr of a blackbird where water smiles,
Padding of feet on the trails.

Drifting of fleecy clouds overhead,
Dallying breezes that pass,
Droning of bees in the clover bed,
Drowsy sounds in the grass.

Laughter and shouts at the river's brink,
Naked bodies that gleam,
Poised for an instant, then plunged to drink
Delight in the clear, cool stream.

Lengthening shadows out of the west,
Notes of a bugle shrill,
Bacon diffusing alluring zest,
Tumult down from the hill!

Horned owl bent on his mission dire,
Winging in muffled flight,
Red glowing coals of a dying fire,
Burning a hole in the night.

With the Aid of Some Matches

By George G. Livermore

Illustrated by Judy Collins

THE puck slithered across the ice, missing the Clown's hockey stick by a scant inch. Caroming from the side boards to the clutches of an eager Plata Date forward, it was whirled back toward the Clan's goal, as the referee's whistle shrilled the end of the match.

"You poor ham!" growled Slippery Elm five minutes later as the mortified Clown was tugging off his hockey shoes in the skating house. "If you hadn't missed that pass we'd have tied the score, and beaten them in the overtime period. Now the Plata Dates cop the club league. They were chesty enough before. There'll be no living with 'em now. What's the matter with you anyhow, Clown? You've been in a trance for a week."

"I'm sorry, Slippery," replied the crestfallen Clown, "but really——"

"House partyitis, not trance," interrupted Skeeter Robinson, hopping around on one foot, while he rummaged in his locker for his street clothes.

"Ever since he had that invitation to the Christmas house party at General Lowell's, he's been worse than useless. Missed three shots at goals this afternoon; and he's taken to studying nights. It's gone to his head."

"The trouble with some people around here," retorted the Clown angrily, as he turned up the collar of his ulster, "is they are sore, because they weren't invited. My brother says——"

"Stop him!" yelled the Owl from a bench in front of the fireplace, "if he gets started on what his brother says we'll all need gas masks."

"What is it your brother says?" asked Antidote Jones with sweet malice.

"If it hadn't been for General Lowell the Germans would have captured Paris," chanted the Clan as the Clown went out slamming the door behind him.

The next afternoon, after recitations, the Clown, with the knowledge of his poor playing of the day before still rankling in mind, walked out to the end of the village, where he stood on the stone bridge which spanned the river by the Bemis Knitting Mill. But even the fascinating sport of throwing snowballs at an empty oil can which had lodged against a cake of ice could hold his interest for a few minutes only. Then, feeling hungry, he remembered he was in the vicinity of Nannie's cottage, and that, most wonderful of all, he had money in his pocket, so he betook himself thither as fast as his long legs could carry him, the thought of rich chocolate and layer cake spurring him on.

After three cups of steaming chocolate, piled high with whipped cream, and four huge slabs of layer cake, he so far forgot his woes that he told Nannie of his impending visit.

She listened patiently, exclaiming when he finished: "The saints bless him fur stoppin' thim murtherin' divils. And tu think ye are to stay wit th' great man! Foine!

Foine! Master Stone, it's great tales ye'll be telling old Nannie next turm."

The Clown paid her. "Merry Christmas and Happy New Year, Nannie," he said. "Tim'll be home, I suppose?"

Nannie's bright old eyes began to blink suspiciously, and her gnarled fingers tugged at the corner of her apron. "He'll not, Master Stone. Tim was hurted bad last week in th' factory where he wurks. He's in th' 'orspital in Boston now."

"Why, Nannie, what a shame! You'll be going down to see him? He's getting along all right, isn't he? Anything I can do?"

"Thank ye, no, Master Stone. Yis, praise th' Saints, he's out o' danger; but I can't go tu him. Trade's been poor this winter, an' travelin's awful dear nowadays."

"Gee, that's a crime, at Christmas, too!" exclaimed the Clown, his red face lined with concern, for he was very fond of the old Irish woman.

"Say, Nannie," he continued as a brilliant idea flashed through his brain. "Maybe if I speak to the fellows we can raise enough to send you."

"Ye'll do naught o' th' kind, Master Stone, for Lor' love ye' I'll not take charity even to see me bye. Merry Christmas, me lad and gude luck to ye."

Her old voice broke, and to prevent the sound of her grief from reaching his ears, she slammed the door as he stood kicking at a little edging of icicles that fringed her top step.

Reluctantly, he walked down her path and turned toward the village, kicking viciously at lumps of ice in the road to express his indignation at the misfortune that had befallen his old friend.



After three cups of chocolate and four huge slabs of layer cake, he forgot his woes

As he walked, he thought of how Nannie had come to Sweetwater in the fall of his "prep" year and how he had been the first to discover her one afternoon after football practice standing on the steps of Morgan Hall, a covered basket filled with fruit and small packages of candy upon her arm and a smile upon her honest Irish face that went straight to the heart of the homesick boy.

Since that day, so many ages ago it seemed to the Clown, now in the upper form, Nannie's popularity had waxed great at Sweetwater. Her wit and sunny good humor soon endeared her to the whole school; and undying fame had been won by her when, in a close game with Hull, an elusive enemy half-back had a clear field, she danced up and down upon the side lines, screaming at Slippery Elm who was in hot pursuit: "Stop that spalpeen or I'll not darn yer socks any more!"

"What an almighty ass I was to have blurted that out about getting the fellows to chip in," he thought. "She won't take charity, Nannie's too game, and it would have been a cinch to have raised it."

Then he stopped short and stealthily drew out his pocketbook, looking at the check for fifty dollars his grandfather had sent him for his expenses to the General's house party. Quickly he stuffed the wallet back in an inside pocket and walked on in the fast settling dusk. Then his steps grew slower and slower, finally he stopped.

"Darn it!" he exclaimed. "I've got to. Didn't she pull me through typhoid when we had the epidemic, and every trained nurse in the county had a case she couldn't leave? Sat up night after night and Doc Meggs told me afterwards, if it hadn't been for her I'd 'er croaked sure. I got to, that's all. It's blamed hard but I got to."

That evening the Clown called upon Father Kelly.

"Tell her the Lord sent it. Nannie's as religious as can be," he said, terribly embarrassed as he arose to go.

The old priest chuckled, as he went to the door with his visitor. "I think," he said shaking hands, "I'd not be far wrong if I did. You've done a good turn to-night, my son, and old Nannie will bless you unknowingly until her dying day. By the way, if ever your Latin gets a bit hard, I'll be glad to give you a lift. Good night."

For the next few days the Clown maintained a discreet silence about the house party, but one afternoon a week before vacation, while the Clan was gulping milk shakes at Gus's, Sport Scully asked him when he started.

"Not going after all," replied the Clown in a poor attempt to seem unconcerned.

Startled, Sport dropped his glass upon the floor, for which mishap Gus promptly assessed him an extra fifteen cents.

"Good night!" he roared, when he had recovered his power of speech. "Not going! Why, you and the General are great pals, aren't you? He made a speech in New York not long ago in which he said if you'd been in France with him——"

"Shut up!" cried the miserable Clown.

"Are you sick?" inquired the Owl sweetly from a bench where he lay sprawled. "Why, you've been blowing about this house party for a month."

"He's got bubbles in his think tank," interrupted Antidote Jones. "I'm going for Doctor Meggs."

"Go to thunder," replied the Clown as he stalked majestically out, leaving the Clan gaping after him in open-mouthed astonishment.

The next few days were agony to the Clown, for the Clan singly and ensemble never missed a chance to inquire about his chum the General, until he began to hate the very name of General Lowell; and to wish that in some miraculous manner he

might be transported to his home in Virginia.

Slippery Elm, the 'varsity half back and his roommate, tried his best to pump him; but all he got for his pains was the reply, "I chucked it 'cause I'm way behind in Latin. I'm going to stay at school and study."



Startled, Sport dropped his glass

The simple expedient of telling his clubmates what he had done the Clown never considered for a minute. He was bashful of his own generosity and afraid his schoolmates would think he was playing to the grandstand.

After the other boys left, he prowled about the deserted school as a cat haunts an empty house in which it has known days of happiness. When he walked through the corridors of the dormitory, the sound of his footsteps on the bare floors reëchoed mournfully in his ears as though in mockery of the days when the building was a humming hive of banging doors, whistles and the rapid patter of hurrying feet.

And as the days dragged tediously by, homesickness descended upon him and wrapped him in its pall of malignity. Time after time he found himself thinking of his home in Virginia.

On the morning of the third day before

Christmas the Clown was huddled close to his fireplace reading the daily paper but, not being interested in the internal politics of the Lithuanians or home rule for the Ukrainians, whom he secretly suspected of having invented the ukalele, he was not enjoying himself. He yawned, letting the paper slip to the floor, and for a few minutes sat staring into the wood fire.

Then his glance roved to the paper lying at his feet and the picture of a negro caught his eye. Above the smeary cut was the caption, "Discovered trying to fire the school farm." The Clown picked up the paper and read the half-column story of how the night before a watchman had, in his rounds of the Academy buildings, came upon a negro, a former janitor who had been discharged by the faculty for selling the football team's signals to a rival school, skulking about the barn at the school farm with a huge can full of oil which he dropped as he fled at the watchman's approach.

When the Clown finished, he tossed the paper in the general direction of the waste basket and sauntered over to a window against which the snow was driving.

"Cheerful day," he muttered. "If Jim escaped, as the paper says, he showed poor judgment. A jail would be lots better in this weather, and," he added, with a glance of disgust around the room, "it couldn't be worse than this; there's company there anyway."

In the middle of the afternoon it stopped snowing and, restless for something to do, he started off on a hike through Baxter's Woods. By the spring half way up Bald Top, he found the fresh track of a fox. For an hour, he tramped steadily along, following it in the dustlike snow until he reached the trail that led up to a small cabin the Clan had built the year before where, with one of the masters, they sometimes spent week-ends.

The fox tracks followed this trail a short distance and then twisted down the side of the hill into a rocky gorge where the Clown decided it was not worth while to follow.

He looked at his watch and decided to push on to the cabin.

As he topped the rise that lay between him and the little building, he was surprised to see a wisp of smoke curling up from its mud chimney. Thinking some tramp had made the cabin a place of refuge, he turned off into the woods on his right so as to approach it from a clump of spruce that grew close to its rear wall, intending to get a glimpse of the intruder through a rear window which was only a few feet beyond some especially thick growing young trees.

Carefully he crept along, blessing his scout training that enabled him to pick his steps without danger of making a noise. He wormed into the clump of spruce and worked his way through it to within a few feet of the open space between the trees and the rear of the cabin. Reaching forth his hand he parted the branches enough so he could peep through. As he did so, a face appeared at the window not ten feet away; the face of the negro whose picture he had seen in the paper that very morning.

The man glanced up at the sky and, from the expression in his eyes, the Clown knew he had not seen him. So he let the branches slip into place and backed his way out of the thicket.

He started toward the village at a swinging lope, determined to report his discovery to the sheriff; but before he had gone two hundred yards his pace slackened until it dropped to a walk. Then he came to a dead stop. He was going to capture the negro and deliver him over to the sheriff without any outside help.

He had no idea of how he was going to accomplish his task, but he remembered a cave two hundred yards up the hillside

that he and Slippery Elm had found the summer before; so he decided to go there and perfect a plan of campaign.

Ten feet from the entrance he found the cave dry as a bone, with a thick, ankle deep carpet of dead leaves spread on its floor and a bundle of dry wood in a corner.

Soon he had a fire blazing and, burrowing into the leaves, he lay beside it, grateful for its warmth, thinking, thinking of how he could accomplish his wild design. Was there anything in his pockets he could use? He chuckled aloud as his hands struck a big wad of sulphur matches for he remembered a trick he had played on Pompey, his grandfather's old colored butler. Then he burrowed deeply into the leaves again, for the wind had changed and was now blowing directly into the mouth of the cave.

He looked at his watch. It was only eight o'clock, three hours he must wait before he dared make his raid upon the cabin.

It grew colder and colder, and the Clown's buoyant spirits began to droop.

"I'm a fool," he thought, "to try to capture that fellow. He may slip a knife into me."

But he possessed a good sized streak of obstinacy and once he tried to do a thing, he hated to leave it unfinished. An hour of his vigil dragged by, then a second passed slower even than the first. He lay curled up in his bed of leaves, hating the mess into which his obstinacy was driving him and yet determined to see it through. Finally, he pillowed his head on the soft leaves, the heat from the fire making him drowsier and drowsier.

He woke with a start, shivering; the fire had died down to a red bed of embers and his arms and legs were stiff and cramped with the cold. He glanced at his watch. It was half-past eleven.

Scrambling to his feet, he shook off the leaves and stamped about to get warm.

Quickly he stripped the sulphur heads from his matches and mixed them into a soft paste by adding melted snow, holding the mixture in the palm of one hand while he stirred it with his fingers, until it attained the right consistency.

Then he gave his face a liberal coating, being careful not to get any in his eyes. He daubed his hands; then, removing his cap, he ran his fingers through his hair. Next he put out the last remnants of his fire and glided out into the darkness. As he sped through the night, he revolved in his mind his plan of action, going over and over again the details he had determined to follow in seeking to gain an entrance to the cabin without arousing its occupant.

The cabin was built with a large living and sleeping room; in the rear of which was a smaller room or shed used for cooking and, at one end, for storage. There was a door between the two rooms which had no lock and the Clown had in his pocket a key to the outer door of the smaller room which opened toward the clump of spruce. Furthermore, he knew Mr. Ferris had left an old shotgun and a handful of cartridges at the bottom of the locker in the shed.

If he could enter the shed, and get possession of the gun before the negro woke all would be well. If not, he preferred not to think of what might happen.

He reached the clump of spruce and wormed his way through it silently as an Indian. Carefully he parted the branches of the trees nearest the cabin. Not a sign of a light showed in the little building. Keeping in the shadows cast by the trees, he crossed the narrow open space and stood close against the rear wall.

For several minutes he waited, getting his nerves under control, then sliding along the cabin wall, he raised his eyes stealthily

above the sill of one of the living room windows and peered within.

At first, all he could distinguish was the fireplace, where the embers of an almost extinct fire gave off a faint glow. Gradually, as his eyes grew accustomed to the darkness, he picked out various familiar articles of rude furniture, and at last he discerned a shadowy form sprawled underneath a heap of blankets on one of the bunks.

Suddenly a weird sound reached his ears and he ducked his head below the window sill, trembling with excitement. Again and again he heard the noise, then, realizing what it was, he almost shrieked aloud his laughter. The negro was snoring. Snoring with the regularity of a steamer's fog horn.

Drawing the key from his pocket the Clown crept around the door, inserted it in the lock and turned it. A horrible creak broke the stillness of the night and he froze in his tracks.

Crouching on the threshold he waited. Then, as the sound of the negro's regular snoring reached him, he pushed open the door. Two steps brought him to the locker. In another instant he had the shotgun and was feverishly unwinding its wrappings of oily rags. A dab with his right hand into the locker, and his fingers grasped some cartridges. One he plumped into the breech of the gun and then, tucking his cap in his pocket, he glided into the living room.

He tiptoed to the corner farthest from the fireplace and sat down on the



"Oh laws, laws a massy!" the black groaned

back of a wooden chair with his feet in its seat. He drew a long breath and then let forth a blood curdling screech, at the same time knocking a tin pan off the table.

The negro bounded from his bunk, then fell to his knees, as he saw, apparently floating half way between the floor and the ceiling, a grinning, glowing skull, from the top of which waved hair of streaming fire.

"Oh laws, laws a massy!" the black groaned.

"No, the devil!" The Clown replied in hollow tones. "Come from the pit to carve out your liver and eat it raw before your eyes."

"Oh, Massa Debil, Good Debil, what ah ever done to you! Let me be, good Massa Debil," the black man slobbered in his fright.

"Get up!" the Clown thundered. "Open that door and walk straight ahead. If you turn around, I'll tear your flesh from your bones with my fiery fingers," and he waved a glowing hand before him.

Moaning with fright, the negro staggered to his feet and shuffled to the door. His hands shook so that he could scarcely draw the bolt; but finally he got it open and stepped out into the night while the Clown, with a terrific howl, followed.

"To the right," the Clown bellowed when they reached the path that led to the village and the negro turned as ordered, shuffling ahead with the Clown following.

At intervals, the Clown howled mournfully and after each howl the negro so quickened his pace that when they reached the road the Clown was having difficulty in keeping up with him. Indeed the negro was having a hard time to restrain himself from breaking into a run.

Forgetting for a moment his rôle of the devil, he panted, "Hey there, not so fast."

Like a flash, the negro realized he had been tricked and, hurdling the low fence at the roadside, started off across a field like a scared rabbit.

Bang! went the Clown's gun and a charge of bird shot whistled above the fugitive's head bringing him to a halt.

"None o' that," roared the Clown. "You come back here and march right into town ahead of me, or I'll fill you as full of holes as a piece of Swiss cheese."

Muttering savagely under his breath, the negro obeyed. Ten minutes later they reached the sheriff's house.

"Oh, Mr. Walden! Mr. Walden!" the Clown called.

Finally a window on the second floor banged open and a head was thrust out.

"What the blazes do you want?" glowered the sheriff.

"It's Stone from the Academy. I caught the fellow that tried to set fire to the school barn. Come on down, will you?"

The window slammed shut and a moment later the sheriff opened the door, slipped a pair of handcuffs on the wrists of his prisoner, and then, looking at the Clown, began to roar with laughter.

"Oh! Oh!" he chortled. "Gee! I thought at first you were a jack-o-lantern. Some disguise. Say, son," he added, "this has been a good night's work for you. There's a hundred dollars' reward offered for the capture of this bird."

"What!" gasped the Clown.

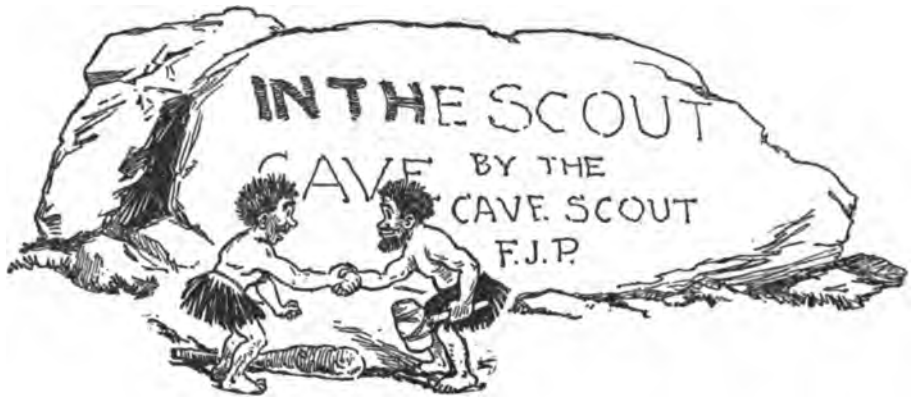
"Sure thing. We've wanted him for two months. Come down to court in the morning."

"Before ten?"

"I guess we can pay you by then. What's the rush?"

"Well, you see," said the Clown, "I start for a Christmas house party at eleven."

"I'm sure it'll be all right," replied the sheriff as he closed the door.



Ho! Christmas! We greet you with songs and with shouts!
The bulliest day in the year to all Scouts!
Your errand of mercy and joy through the land,
We appreciate fully and quite understand.
We're ready and willing to give you a lift
With anything needed—a tree or a gift,
For, though Scouting and Christmas may differ in name,
In spirit they're really one and the same!

MERRY CHRISTMAS! Well, here we are back in the old Cave. And it does seem good to be together—sort of a big family reunion at Christmas time. Hey, will a couple of you fellows throw some dry wood on the fire? Heap it up and let 'er roar! What do we care for expense—this is Christmas! Now, then, help yourselves to the apples in the barrel over there by that bear skin. Ah, that's the stuff! I call this solid comfort! Now we can settle down to a regular old-fashioned confab.

"Say, Mr. Cave Scout, what do you mean when you say that 'Christmas and Scouting are one and the same?' It seems to me that Scouting is hiking, and camping, and studying nature and first aid and things like that. And Christmas is giving and receiving gifts, singing songs, and eating all the candy and nuts and apples you can hold."

Well, brother scout, I guess you didn't "get" me at all. I said the *spirit* of Scouting and Christmas are one and the same. I'll try to explain it for you. Have you ever heard of that commandment: "Love thy neighbor as thyself?"

"Why of course! Everybody has."

Well, Christmas is the one day in the year when people come nearest to living up to that commandment. On Christmas folks forget their enmities, their dislikes and their petty jealousies, and it makes them feel different inside. They show this changed feeling in acts of kindness and generosity, by friendly words and kindly smiles. And when millions of people get to feeling and acting that way it creates a spirit that seems to fill the air. That is what makes Christmas seem so different from any other day in the year. It is the spirit of service—of doing good to others.

Do you remember that day when you joined the Boy Scouts, when you held your hand at salute and promised, on your honor, that you would do your best to "help other people at all times?"

Then you continued: "To keep myself physically strong." What was the idea in that? To keep yourself strong so you could lick some other boy, or take unfair advantage of him? Not for a minute! I know that you want to keep yourself strong in order that you may not become a burden on others on account of your weakness. Yes, in order that you may be able to resist any vicious and unpro-

voked attack, but most of all because you know that you must have strength in order to do your work in the world and to accomplish something worth while for mankind.

And when you promised to keep yourself mentally awake, you didn't figure on using your mental alertness for driving a sharp bargain with some other fellow less keen than yourself, did you? Of course not. Your thought was to use what brains you possess in helping to make the world a better and happier place in which to live. That's the Scout idea—the spirit of service—of doing good to others.

THE LONG WINTER TRAIL

Ho, there's ice on the streams, there's zest in the air,
There's an undefiled blanket of snow everywhere;
There's frost on each twig and each roadside weed
Is burdened with rubies and diamonds for seed,
And through the long stretches of deep forest lanes
A tense, white, crystalline silence reigns.
So come with me now over hill, over vale;
Come away with me now on the long winter trail!

Ho, the storm-clouds are tumbling in the sky,
Flinging their pellets of sleet as they fly!
The snow-wreathes are slithering swift in the road.
The hoary old wind from the North is abroad!
Out of the arctic waste, barren and vast,
Rushing with fury—a terrible blast!
Come along with me now—push into the gale!
Come along with me now on the long winter trail!

Oh, there's beauty to me in the soft, rounded lines
Of the snow-moulded hills and the fleecy-crowned pines;
There's music to me in the squeak of the snow,
And the gurgle of streams as they hurry below
Their blankets of ice. And there's joy in the fight,
In matching my strength with the storm-monarch's might.
There's health in the open—hearty and hale!
Ho! Come with me now on the long winter trail!

MR. CAVE SCOUT, what kind of an outfit is best for a winter hike?"

I like a light suit of underwear, wool trousers, a short mackinaw belted at the waist, a wool cap to pull over the ears, mittens, a pair of heavy socks—long ones reaching to the knee—to pull over the trousers, and a pair of stout rubber shoes. That's the kind of outfit that is almost universally worn by professional woodsmen, except that some substitute oiled shoe-packs for the rubber shoes.

But speaking of winter hikes, how would you like to strike off on a five-hundred-mile hike across the plains in twenty below zero weather? That is the kind of a trip that was made by two hundred Minnesota boys, just fifty-six years ago this winter, and the Cave Scout's Dad was one of the boys in the party. This was one of the severest winter marches ever undertaken and is known in Minnesota history as the Moscow expedition, a name which it derives from its comparison, in hardships suffered, with the disastrous winter invasion of Russia by Napoleon. But this expedition, unlike that of Napoleon's, was a "good turn" hike.

It came about in this way. In the fall of 1863 word was brought to Fort Snelling that a band of Indians at Fort Thompson, on the Missouri river, were in a starving condition and that unless supplies were sent immediately they would die of hunger. The authorities knew the trip would be a severe one, so a call was issued for volunteers and two hundred men from com-

panies D, E and H of the Sixth Minnesota Infantry, then in training for the Civil War, offered to go. The party left Mankato, Minnesota, on November 5 with 130 wagonloads of provisions and 500 head of cattle. When the expedition had covered only a little more than one hundred miles of the distance to Fort Thompson there came a heavy fall of snow, followed immediately by a sudden drop in temperature, and from then on, for the entire period of the trip, the party fought blizzards and biting cold, with the thermometer averaging nearly twenty degrees below zero.

For four hundred miles their route led across an open plain, without settlers, without shelter, without fuel. But on they pushed into the teeth of the gale, bivouacking each night in the snow, and gnawing frozen rations to satisfy their hunger.

The suffering of the animals was pathetic. No space was provided in the wagons for forage as it was planned to carry the animals through the trip by allowing them to graze each night on the prairie. But such a heavy snow fell that the animals could get very little grass and the men found it necessary to scrape off the snow for them. This, however, was far from sufficient for their needs and the oxen began to drop in their yokes. As an animal fell, a bullet would end its misery and another from the herd would be yoked in to take his place. As many of the frozen carcasses as could be carried were piled on the wagons, to be used as additional food for the Indians.

After nearly a month of this struggle, the party finally arrived at Fort Thompson, where it was found that nearly forty of the suffering Indians were dead for the want of food.

After resting at the fort for three days the return trip was begun on December 5—a journey which had in store for the men even greater suffering and hardship than they had endured before. When only four days out on the back trail, a terrific blizzard set in and the snow fell to such a depth that the wagons could not be dragged through. Consequently it was necessary for the men to march ahead of the wagons in double file, plowing through snow, oftentimes waist-deep, to break out a trail.

Day after day they struggled on in this manner, their progress delayed by the unprecedented severity of the weather, until a new danger confronted them—the rations began to run low. One by one their articles of supply became exhausted, pork, sugar, hard-tack, until finally, on the last lap of the journey nothing remained but flour. There was no fuel to cook with so the men mixed the flour with snow and ate it raw.

Finally, when even their flour supply was nearly exhausted, they reached Mankato, after more than two months spent on the wind-swept, shelterless plain. But they marched into camp in Mankato in good physical condition without losing a man.

"Gee whillikers, Cave Scout, that was some trip! How did they keep from freezing to death?"

Well, they were all frontiersmen, used to hardship, and trained by necessity to take care of themselves under all conditions. They were given some time to prepare for the trip before starting out, and most of the men improved their time by catching muskrats with the skins of which they lined their mittens, their caps and their army capes. Then they were issued extra shirts and blankets, and Sibley tents for such shelter as a tent can afford, without heat, on the plains, in twenty-below weather.

Br-r-r-r! Makes this old fire-place feel pretty good, doesn't it, fellows?

Say, have any of you ever tried tobogganing with a barrel-stave jumper? Great

sport! All you need to make one is a strong stave, a block of wood about four inches in diameter and from eighteen inches to two feet long, depending on the length of your legs, and a piece of board about ten inches square. Nail the block of wood to the stave, and the square board on the top of the block for a seat and your jumper is ready for business. Take it to a steep hill, mount the critter and let 'er go. You'll probably spill on your ear the first few times but after a while you'll get the knack of balancing the thing.

Some day when you come to an unbroken field of snow, walk across it in what you think is a straight line, and when you get to the other side turn around and look at your track. Chances are it will look pretty wobbly. Then try again, following these instructions: Select two objects, in line with each other in the direction you're going, and keep them in line with each other as you advance. You will find now that your track is straight. This is a trick every woodsman knows, but he does it so constantly that it becomes second nature to him.

Wouldn't a little fresh air taste good? What do you say if we take a look at that long winter trail?

FIGHT IT THROUGH

In your work and in your play,
Fight it through!
Hang right on like yellow clay,
Fight it through!
When a job you once begin,
Through the thick and through the thin,
Set your mind and heart to win!
Fight it through!

What if others may have failed,
Fight it through!
Though by powerful odds assailed,
Fight it through!
Refuse to be an "also-ran,"
Square your shoulders like a man,
Grit your teeth and say "I can!"
Fight it through!

Well, suppose things do look bad,
Fight it through!
Show a little pep, get mad!
Fight it through!
When you know you're in the right,
It's your duty, boy, to fight,
So go in with all your might!
Fight it through!

"Cave Scout, to tell you the plain, honest-to-goodness truth, I'm just about discouraged. We used to have a good live troop in our town—a bunch that did things. But we changed Scoutmasters two or three times, and one by one the members dropped out until now there are only four left. We have been trying to hold meetings and carry on the work, but there seems to be nobody to help us and we aren't getting anywhere. I'm just about ready to quit."

Now here are a few tips that may help you to get things going again in your troop. I guess I'll tell you what one group of boys who lived in a small town in Iowa did when they were up against a problem like yours. First of all they made out a list of names of all the men in town whom they thought might make good Scoutmasters. Then they worked this list over and finally agreed on one man. They called on this fellow and he told them he "didn't have time" and he "didn't know anything about it" and he "didn't think there was any need for a troop anyway," and several other "didn'ts" that so many of you boys who have tried to round up a Scoutmaster have heard.

But they didn't give up. A week or so later they called on him again. No results. Then they wrote to National Headquarters and told who they wanted for Scoutmaster, and asked to have a letter written to the man of their choice. Still no results. Next they put their problem up to the Scoutmaster of a troop in a neighboring town and asked him to tell their candidate something of the work of

the Boy Scouts and to get him interested. He began to warm up a little at that and asked the boys to his house. They went over the Handbook together, tried some of the knots and a few other simple scout stunts, and the following day this man's application as Scoutmaster went in to New York. Now the troop is a live one, with a full membership, first class scouts, merit badge scouts in everything. And all because these fellows determined to fight it through!

Suppose you were a scout in a humdinger troop and you got the tuberculosis and the doctors sent you to a sanatorium, where the only boys you had to play with were a lot of poor chaps hobbling around on crutches. Maybe you'd feel like quitting then, eh? Well, I have a letter right here from a boy who is up against that very thing. But do you think he is going to quit? Not for a minute! He has talked Scouting to those boys until they are all excited over it. More than that, he has hunted up a man near the sanatorium who has agreed to act as Scoutmaster, and they are forming a troop.

"Of course," he writes, "there are quite a lot of things we can't do, but there are a great many things we *can* do, and we're going to have a bully troop!"

How's that for fighting it through?

Oh, I tell you, if every boy here could only get this fighting spirit into his soul right now, there would be a powerful group of men in the world in just a few years. But if we are going to get this fighting spirit we must be very careful of little things.

Do any of you ever go into the basement on Saturday morning saying to yourselves: "Now I'll carry out that whole pile of ashes before noon?" Well, you carry out a couple of cans and then somebody whistles down the alley. "Shucks," you say to yourself, "I can just as well finish this up after dinner." And when you drop the ash can and run out to meet your pal, that old fighting spirit gets an awful wallop.

Maybe the next day you run into a tough set of problems in arithmetic. You plug at them for a while and don't get any results, and then chuck the book on the table, saying to yourself: "Oh, I'll have plenty of time to do those problems before class to-morrow." Bingo, another wallop for your fighting spirit.

This thing soon gets to be a habit and every day becomes harder for you to finish up any job you may undertake.

Ten years from now you'll be out in the world working for yourselves. Some day your boss will say to you, "Tom, will you prove up this set of books to-day, please?" You say, "Yes, sir," and begin, but there is a mean tangle in them somewhere, and after plugging along for a while your old habit asserts itself and you say to yourself, "I'll have plenty of time to finish these up after dinner." But after dinner comes and the job is bigger than you thought, and the work isn't done when the boss comes around, and the next day Bill gets the position just ahead that you have been hoping to land.

Maybe that sounds kind of far-fetched, but it's true as truth, as thousands of men who have failed to achieve much success in life will testify.

How about it, Scouts, don't you think we'd better take mighty good care of our fighting spirit? Don't you think we'd better make up our minds that whenever we tackle a proposition we'll

FIGHT IT THROUGH!

Old Doc Peterson's Diving Rod

By Frank Farrington

Illustrated by Bert L. Salg

"DID you ever find any buried treasure, Joe?" asked Hippy Bolan as he and Joe Pickering sat on the steps of Merrill's drug store one morning.

"Nope, and neither did you," replied Joe. "Nobody's buryin' any treasure nowadays. They spend it all, or else they put it in the bank."

"I know," Hippy persisted, "but I mean treasure buried a long time ago before there was any bank. You've heard about the time the Indians burned the block house across the river on the hill, haven't you?"

"Nope, and I don't believe there was any block house there," and Joe stuck his long, skinny legs out straight and went through his trousers pockets in search of a stray nickel to use in the gum machine behind him.

"Well, what d'you know about it, anyhow?" Hippy objected. "You've only lived here a little while. I guess my father knows all about this country. He says there was a block house an' didn't he write Bolan's History of Delaware County?"

"Search me!" said Joe as he sat down with his gum and unwrapped it to divide with his companion. "I never heard of the history any more'n I ever heard of the block house. I guess you're dreamin',



"I ain't no Rocky Mountain goat"

Hippy. Wake up!" and he jabbed the fat figure of Hepworth Bolan in the ribs with a sharp elbow.

Hippy rolled over and threatened to crush the life out of Joe. "Say you heard about my father's history or I'll sit on you!" he demanded, suiting action to promise.

"Get off o' me!" Joe yelled, as the ponderous weight of Hippy descended on his chest. "Get off o' me! I never heard of your father's history of the block house and you can't make me say so if you do flatten me out. I ain't goin' to lie about it, you great fat—you great fat—elephant."

The rumpus brought a tall, freckled boy out from the drug store, wearing a rubber apron, his hands wet from washing soda fountain things.

"Here, you two boloviskies; stop your fightin' on my front steps. What do you think this is, a barn?"

"Who you callin' a ball o' whiskers?" demanded Hippy, as he got up and looked over the prostrate Joe at Tinkham Basset, grinning down at him from the doorway of the store. "Ain't we got a right to fight if we want to?"

"Sure, you got a right to fight," said Tink. "What's it about?"

"Nothin'," answered the puffing Joe, "only he's made 'cause I never heard of his father's history of a blockhead. How'd I know anything about it? His father never told me."

"Didn't my father write a history of this county, Tink?" asked Hippy, "and didn't there use' to be a block house across the river on the hill?"

"That's right," agreed Tink. "We got the history down to my house and I've read in it about a block house and the time the Indians burned it down and took all the men in it prisoners, and their wives too, and took 'em away and they never came back."

"And, Tink, didn't they bury a lot of treasure in the floor of that block house before they were captured, so the Indians wouldn't get it, and they were goin' to come back and get it, only they never did?"

"Sure they did. Everybody says so, an' nobody knows just where the block house stood, so nobody's ever got the treasure."

"There," said Hippy, "now will you believe me?"

"S'pose I do believe you an' s'pose I don't. What about it?"

"Why, I don't see why we don't go and find that buried treasure," said Hippy, sitting down again. "Tink knows how we can find it, don't you, Tink?"

"I know a feller 't can find it for us," agreed Tink. "He'll be here to-morrow."

"An' to-morrow's your afternoon off, ain't it?" asked Hippy.

"Sure thing. Ol' Doc Peterson's coming to-night."

"Who's ol' Doc Peterson? How can he find buried treasure?" asked Joe.

"He's got a gift for findin' buried treasure, because he told me so," said Tink. "Last time he was here he told me he could spot a gold or a silver mine or he could locate buried treasure because he's got a gift that way, an' he wanted me to go out and help him find the treasure buried where the block house used to stand. 'Course I don't know where it stood, but everybody says it was over on the hill east of the village and it must have been on that kind o' level place just below the woods. I read about it in the history and it says it was in a level spot."

Joe was now just as much interested as the other boys. "Let's get Doc to go out with us to-morrow," he suggested.

Old "Doc" Peterson was a traveling doctor whose monthly visits to town were heralded by large advertisements in the local paper. He was patronized by the less intelligent and the more credulous people of the community who expected the old

Old Doc Peterson's Divining Rod

fraud to work marvelous cures upon them.

His visits were always the occasion of many trips to Merrill's drug store where he ordered his remedies made up on the shotgun principle, putting enough kinds of drugs into every patient's bottle so that he felt sure that, no matter what the disease might be, there would be something there to fit it. He was an ignorant, superstitious charlatan, believing in signs and dreams.

In person the "doctor" was a frowsy, black whiskered individual with a dirty Panama hat and a long black coat covered with dandruff and fringed at the cuffs. He believed in and openly boasted of his ability to use the divining rod or forked stick supposed to indicate to the user the location of things he sought. It was such a faith people used to have in the forked witch hazel branch. They believed that by holding the forked stick by the two branches, the point foremost, when passing a point where a well might be successfully dug, the point of the fork would indicate the presence of water by bending downward.

Right after dinner, the day after the above conversation of the boys, the three of them set out with the doctor, the latter carrying under his coat a somewhat frazzled looking forked stick, or, as he called it, a divining rod.

The boys looked with a good deal of awe at this rod which was to accomplish such wonders. "You wouldn't think there was anything about it," whispered Joe to Tink. "It looks just like any stick."

"What do we care how it looks?" was the reply. "We ain't goin' to buy it for a parlor ornament. I'll bet it's the stuff all right. He wouldn't be carryin' it till it was all worn out if it wasn't a good one."

It was a long climb up the hill and it kept the heavy doctor puffing, and often the boys had to stop to wait for him to rest and get his breath. "How far is it to this place?" he asked once impatiently. "I ain't no Rocky Mountain goat. Are you sure you know where they think the block house was?"

"Right up there on that kind o' level spot," said Tink. "I know that's where it was. That's the only good place for



The doctor marched along, the divining rod held out in front

one, but you'll have to find just where with your stick."

"The divining rod will locate the spot all right. Don't you worry," said the doctor confidently.

Stopping at a huge overhanging rock near their destination, Hippy brought out a hatchet and shovel and pick-ax, tools they had carried up and hid there the previous afternoon. Then allowing the doctor to go ahead, they proceeded to cross and recross the section where the block house was supposed to have stood.

The doctor, his hat on the back of his head, his loose necktie ends floating in the wind and his frock coat flying open, marched enthusiastically along, the divining rod held out in front, almost at arm's length.

The land was rough and covered with rocks and stones. There was even a barbed wire fence diagonally across the locality. All this made procedure slow and toilsome. Hippy fell once in getting over the fence and the doctor tore one coat tail off on the barbed wire, and the afternoon went by without any definite locating of any spot where the divining rod seemed to point to anything buried. The doctor began to grow impatient and asked the boys why they had brought him up there on a tom-fool errand.

"We brought you because you said you wanted to come," said Tink. "You told me you could locate that buried treasure and that if I'd just bring you up here where the old block house stood, you'd do the rest. I don't see's you're doin' it very fast."

"Don't get fresh, young fellow," said the doctor. "I ain't used to foolin' with kids. I can't locate treasure where there ain't none. I ain't sure," he persisted with his crude grammar, "there was any block house here or anything in any history about it."

The boys were a little frightened at the threatening attitude of the man and they attempted no reply, but continued to follow their leader up and down the hill.

At last the doctor sat down in disgust and exclaimed, "I've a good mind to wallop you boys for bringing me here. If I don't find anything after going up and down there three more times, I'm going to quit. It'll be so dark by that time that we can't see to get down the hill anyway. I might have made twenty-five dollars in town this afternoon and here I've wasted half a day with three half-witted kids."

The doctor got up and proceeded, grumbling as he went, to march across the field three last times, while the boys stood and waited, beginning to wish themselves back home as they looked down the hill to where the lights of the village were already twinkling in the deepening gloom.

Once the doctor went over the route and back. Again he went over it and was on his way back when he stopped short with an ejaculation and dropped his divining rod and plumped himself down beside it. "This is the place!" he called to the boys. "Bring your pick quick!"

"He thinks we've got a set of Dickens with us," said Joe as Tink and Hippy ran over with the tools.

The doctor seized the pick-ax and began digging frantically in the earth. It was so dark that he could see little and at the third stroke of the pick he struck the side of his shoe and grazed his foot as he gashed open the leather. He paid little attention to this in his excitement, but dug on, only resting for breath now and then.

"Why don't you help?" he shouted to the boys. "What you standin' there for like a bunch of ten-pins waitin' to be knocked over? Get busy!" This without regard for the fact that he was occupying and making dangerous with his flying pick, the entire vicinity of the hole.

After digging a hole some three feet

deep, he stopped and exclaimed, "Give me a match." No match was forthcoming.

"You mean to say you ain't got no matches," he ejaculated. "Go right down and get a box. We can't leave this now. Why don't you go?" as none of the boys started.

"Gee! I ain't goin' 'way down there and back again," said Hippy. "What d'you think I am?"

"Nor me," said Joe.

"Let's leave it an' come back early in the morning," said Tink.

"Early in the morning! I got to be in Poolville to-morrow forenoon. I can't stay here, and anyway, do you suppose we're goin' to leave a fortune uncovered here for somebody else to come along and dig up after we've got it located? I tell you there's a million dollars in here. I could tell by the way that rod jumped down the minute I passed over this place. I never had it act that way before."

No one offered a solution of the problem and finally the doctor said, "We got to have a light and we got to have it now. You boys go down to that house we passed part way up the hill, and get a lantern."

"You an' Joe go, Hippy," said Tink. "I'll stay an' help Doc."

"No, all of you go," said the doctor roughly. "I don't want any help diggin'. You're just in the way."

So the three boys started off. They had not gone far before Tink exclaimed, "What d'you s'pose he wanted to get rid of all of us for? I'll bet the ol' geezer is goin' to dig up that treasure while we're gone, an' beat it."

This suspicion seemed sensible in view of his obvious anxiety to get them all out of the way.

"What'll we do?" Hippy asked, sitting down on a rock.

"Kind o' hard to decide, ain't it?" said Tink. "I'd hate to have him cheat us out of that treasure."

"He can't do much without a light," suggested Joe.

"Listen!" exclaimed Tink. "Hear him diggin' away there. He's diggin' faster than he did when we were there. I s'pose we might as well go on, though."

They went on down the hill farther and were soon out of hearing of the strokes of the doctor's pick. They were nearly down to the cottage where they expected to get a lantern when, coming out on an open rise of ground, they looked back up the hill and caught the flash of a light.

"See that!" exclaimed Tink. "The ol' geezer's got a light. He's bluffed us till he got us away. I'll bet he's got a flash lamp." The light bobbed around a little and disappeared.

The boys started excitedly back up the hill as fast as they could go in the dark and pathless field. It took them at least fifteen minutes to get back to the site of the doctor's excavating and once there, they found no doctor, no light, no signs of anything.

Tink scrambled down into the hole and felt around. It was plain enough that the hole was considerably deeper. Many good sized stones had been thrown out.

"He's got it and gone; the ol'—the ol' sneak!" exclaimed Tink. "What'll we do?"

"I know," said Hippy. "Your boss's brother, John Merrill, is a constable, ain't he? Let's beat it home an' get him."

Down the hill they ran, and so reckless were they of their necks and limbs that in twenty-five minutes they were in the village. They went right to the constable's house, where they all began to speak at once as soon as Constable Merrill appeared.

"One at a time," said the officer of the law. "You boys talk crazy."

Tink then became spokesman and explained the situation.

"So old Doc Peterson has got your

buried treasure and gone, has he? Well, he won't go far afoot. Be sure o' that. We'll land him in the morning. Leave it to me and I'll have him for you when you come around in the morning if you don't come too early."

So the boys went home, excited, anxious, somewhat mystified as to just what had happened. After they left Merrill, he dropped into the Edgerton House and looked at the register. "Doc Peterson here yet?" he asked the clerk.

"Went out at noon. Said he'd be back at nine to-night. He's a little late, but stick around. He'll come in. What's the matter? Got a spavin?"

"No, ringbone," said Merrill.

He sat an hour before anything happened. Then he saw a rough looking customer slip in the back door and go limping up the rear stairway. At a glance it was plain that his coat was badly torn and his clothes soiled and his hat missing.

As soon as this figure disappeared upstairs Merrill asked the clerk the number of the doctor's room.

"Twenty-eight; second floor; back wing."

Merrill went up and knocked at the door.

In the morning three boys opened the gate to the constable's cottage just as Merrill came out on the porch.

"Hello, boys!" said he. "The top o' the morning to you!"

"Did you get him?" the three asked almost in one voice.

"Boys, I found your man last night and he looked as if he had just dug himself out of his own grave. My soul!" and the constable laughed long and loudly, while the boys waited for an explanation. "He said he'd been for a walk, but I told him I knew where he'd been and that he'd better come across with the treasure."

"It's a good thing you or his patients couldn't hear him when I mentioned buried treasure. 'Treasure,' he yelled, 'Treasure! If I had those three boys I'd treasure them and I'd bury them too. They tramped me all over that hill all the afternoon and told me there was treasure buried there. They showed me a place where they claimed it was buried, and they had me digging there for hours. Finally I got tired and sent 'em after a lantern so I could skin out."

"I asked him about his locating the place with his crooked stick and he had to admit that he had been fooled, but, say, he believes in that dinky little stick yet. He said it did take a dip at that place he dug, but I guess it was more dippy than dip. Anyway, he admitted that when he got down a few feet he saw there was nothing there, and he wanted to get out of it without you boys finding out he'd been fooled."

"I ain't so sure," Tink added. "How do we know he didn't get that treasure and hide it so he can go back and get it alone? Mebby he fooled Mr. Merrill."

"Well, he lied some no doubt to me and to you, too," said Merrill, "but I don't believe he lied about the treasure, because, in the first place, it was on the top of the hill, not half way up, the block house stood. In the second place, it wasn't on that hill but on the next one. And in the third place, there wasn't any treasure."

"How about what it says in the history?" asked Tink.

"The history says it was believed there was some treasure buried, but in a footnote at the end of the chapter it says—and I've seen it many times—that subsequent statements by one of the survivors who came back at last are to the effect that nobody in the block house had any treasure to bury."

"Good night!" ejaculated the boys, turning to go.

"Good morning," said Constable Merrill. as the three passed through the gate.

Four Footed Folk

By Arthur F. Rice

Secretary of the Camp Fire Club of America

IN creating the squirrel family Nature performed one of her most gracious and beneficent acts. She made the striped squirrel for the very small boy, the red squirrel for the larger boy and the gray squirrel for the big boy from 15 to 70 years of age, and threw in flying squirrels and black squirrels and fox squirrels as an evidence of her generous disposition to please everybody. She decorated the stumps and mossy rocks with tiny, beautiful forms and added picturesque life to the rail fences and stone walls with a charming race of busy little creatures whose graceful motions and interesting habits contribute much to the entertainment of all mankind.

It was in the eternal fitness of things that the squirrels should do something for Nature in return for the gift of a joyous existence; so they set about helping to plant her garden. The chipmunks buried beech nuts and chestnuts and acorns in the ground and thus did their part in the scheme of scientific forestry. The red squirrels dropped hazelnuts, butternuts, cherry stones and pine cones along the walls and fences and straightway there sprang up along these avenues of squirrel travel fruitful shrubs and lusty trees where other squirrels find a feast, where the birds build their nests and under which the cattle enjoy a grateful shade. So the squirrels earned, and continue to earn, the right to live and to rejoice in life.

How ill could we afford to spare that vivacious and lovely bit of vitality, the chipping squirrel, the baby of the family, so to speak, that plays about our very feet, frisking among the leaves, scampering over the forest floor, or disappearing with a chatter of mock alarm into his tiny burrow. Audubon has likened the chipmunk among animals to the wren among birds, and the simile is a good one, for both are pert, saucy and the embodiment of joyous activity.

The chipmunk is a provident little chap, and stores up a prodigious quantity of food, sometimes a peck or more of nuts and grain; and when snuggly hidden in his winding burrow, the mouth of which he closes when the cold season arrives, a hard winter has no terrors for him. His enemies, the hawks, owls and weasels, may go hungry, but safe in the bosom of mother earth, with the warm mantle of the snow above him, the chipmunk passes a cosy winter, in the midst of comfort and plenty, dreaming of the time when the south wind shall blow again and the squirrel cups shall open once more.

Daintiest and most rarely seen of all his tribe is the flying squirrel, the connecting link between the quadrupeds and the birds. Soft and downy as any of his feathered congeners, he might easily be mistaken for one of them as he skims from tree to tree. We do not often get a view of him because he is a nocturnal animal and few know where to look for him in the daytime. Yet he has been known, for

it is recorded that in 1624 Governor Smith, of Virginia, described him as "a small beast they call assapanick, but we call the flying squirrel, because spreading their legs and so stretching the largeness of their skins that they have been seen to fly 30 or 40 yards."

There are more of these little fellows in the woods than one would suppose and they can be found without difficulty in any old forest where there are numerous decayed trees. Their home is generally in some old yellow birch or beech stub or tall stump, and is located near the top. The entrance is a small round hole, usually on the south or east side. In situation and appearance it is so similar to the home of the wood-pecker as to be easily mistaken for it, and it is more than likely that in some instances, it has served as such for both, the squirrels taking possession after the bird has hatched her brood and vacated the tenement. Whether the squirrels select these comfortable but somewhat shaky quarters because the wood is soft and easily worked, or because the insecurity of their abode acts, in a measure, as a protection from their enemies, I am unable to say. They seem to be aware, however, that their house is liable at any time to be down about their ears and appreciate the necessity of being ready to move out quickly. It requires only a slight jar or blow on the base of the building to create consternation among the family in the top story. First a sharp little head, with black beads as eyes, pokes itself out of the window and takes an observation as to the nature and motive of this unceremonious knocking. If the jarring is continued, one after another the mouselike little creatures hurriedly emerge and sail off in different directions. They do not fly as birds do; there is no flapping of their wings, which are merely an extension of the skin from the sides of their bodies to their feet; nor do they possess the power of flying upward. They simply sail down to the base of some tree conveniently near, run up to get a fresh start and again fly downward. If closely pursued they usually run up to the top of some large tree and hide there. They breed abundantly, and it is not uncommon to find 6 or 8, old and young, in a single nest. They are the least obtrusive and noisy of squirrel kind, and if you seat yourself at night under the tree in which they live, you will merely hear a few mouselike squeaks as they frolic and chase one another about above your head. There is nothing in nature softer than their fur, and some country people say it is a sure cure for the earache. Fortunately this is not a universally accepted fact.

As one pushes through the fringe of undergrowth which skirts the forest and seats himself, at daybreak, on a stump or a fallen tree to watch and listen, the woods become full of life. The blue jay sounds his trumpet call, the crows hold noisy consultation over their plans for the day and a ruffled grouse whips the twigs of the pine with her wing as she leaves her roost. The chipmunks scurry about from stump to stump, now rushing precipitately to cover, now coming forth again to take a critical view of the intruder. Their larger cousins, the red squirrels, come out from the hemlocks and, perching on a dead branch, rattle out a challenge to all comers. At last comes the sound for which you have been waiting and which makes the heart beat faster. It is a thrashing among the boughs of the hollow maple near by, telling you that the gray squirrel is out after his breakfast. Away he goes toward some big oak or hickory, scattering a shower of dew from the leaves as he jumps from limb to limb, revealing his course by the springing branches he leaves behind him. If his suspicions are aroused by anything he sees or hears, he stops, cocks himself up on a limb or plasters himself against a tree trunk and barks disapprov-

ingly, accenting each syllable with a jerk of his broad tail. Of all the sounds in nature, there are few which thrill me like the bark of the gray squirrel.

There is in it something so wild and primitive that it stirs in me a remnant of aboriginal instincts. It is said that when the convicts of Siberia hear the notes of the cuckoos in early summer an intense and inexpressible longing to escape to the woods seizes them. It is to them the call to freedom, and the soft alluring cry so affects them that, at the immediate risk of their lives, they attempt to obey its summons. I comprehend something of what their feelings must be; for if I were imprisoned within the hearing of the gray squirrel's bark I should take the most desperate chances of breaking jail. It will ever be associated in my mind with the fragrance of the woods, the dropping of nuts, and the soft, hazy atmosphere of the Indian summer.

The gray squirrel is an improvident fellow, enjoying the profusion which one season furnishes, but taking no steps to provide for the time when food will be scarce and hard to get. He is so much like the Indian in this respect that it would be interesting to know which first set the bad example for the other. It is possible, however, that he makes a mental note of where the nuts dropped, for he seems to know just where to dig for them in the winter. He is luxurious in his tastes, and, tiring of his winter quarters, generally builds for himself a cool and airy summer cottage of leaves, possibly with some sanitary motives in view. Whether his wife stays awhile after he leaves their home in the hollow tree and cleans house against their next winter's occupancy, I have yet to learn. I do believe, however, that the male squirrel is the carpenter of the family and takes the contract for building, because, recently I discovered him in the act. The nest in a tall chestnut was nearly completed and was as big as a half bushel. He made hasty trips to the top of the tree where the leaves were thick, cut off half a dozen with his teeth and ran down to the nest, going sometimes inside with them and again adjusting the outside, examining his work critically but apparently with a self-satisfied air. If I had had the time I should have waited to see the result of this house building, to learn whether he intended to invite a mate to share it, or whether he was merely furnishing bachelor apartments for himself.

The broad, bushy tail of this active and graceful animal performs an important function for him in his flight from tree to tree, as I once had an opportunity as a boy of discovering. My companion, who used a rifle, chanced to cut off a gray squirrel's tail with a bullet. It was the old story of a ship without a rudder, and, although no vital part was injured, the erratic movements, miscalculation of distances and numerous falls of the squirrel plainly demonstrated that this missing member was essentia. to his speedy and accurate locomotion. The gray squirrel does not require a great quantity of food and although he comes out more or less in winter, he is not much in evidence at that season, sleeping most of the time in his hollow tree. He is a beautiful animal, however, in his winter coat and fills his niche in the forest.

The red squirrel, or chickaree, has been the subject of wider discussion and more controversies than all the other members of the squirrel tribe. He has many human as well as other enemies, and they give him a bad name and an unsavory reputation. He has been called the Ishmael of the woods, and the buccaneer of the forest, and has been accused of laying up nothing for himself, robbing the larder of his larger cousin, the gray squirrel, and being "a potent sucker of eggs."

I admit that in one respect he is an Ish-

mael, for truly the hand of almost every man, and every boy, too, is against him; but this makes me even the more willing to defend him. I do not know that he needs sympathy, for he seems abundantly able to take care of himself, and, although protected by no game laws that I know of, manages to thrive and reproduce his species within a stone's throw of his worst enemies. He even "snickers" at them and seems to court the danger of their presence, while his larger but more wary relatives are having palpitation of the heart and making frantic haste to get under cover. The saucy little chap is certainly entitled to admiration, and no true sportsman would put an end to his strenuous life. He has his faults, it is true; he is no respecter of persons and would as soon drop a cone on your head as on mine; he is said to be a destroyer of bird nests and their contents; but in so doing he is merely obeying the law of Nature and possibly helping to adjust the balance she is always striving to preserve. He is hardly big enough to eat, and that is a serious fault in the estimation of some people. He is pugnacious and stands ready at all times to whip gray squirrels much larger than himself, which we must concede is a naughty thing. There are those who rejoice to see a small dog beat a big one and chuckle to see a bantam whip a shanghai, yet they cannot see anything commendable in the red squirrel that chases a two-pound gray into an adjoining township; but all men do not see things alike.

As for the man who calls my little fellow woodsman "the buccaneer of the forest," possibly if the tiny warrior could speak he might ask him what he is doing with a gun, and whether a squirrel has no right to forage on his ancestral preserve. If he happened to be a moral and thoughtful squirrel he might even ask this man which were better, to take the gray squirrel's food or his life. I should like to know if the red squirrel actually does steal the food the gray squirrel has stored. If so I shall have learned something. I was brought up in a country where gray squirrels were almost the only four-footed game, and I spent more time hunting them than my parents or schoolmaster thought necessary; but I never yet saw a gray squirrel store food in tree or nest. I will not affirm that they do not, because the more I learn of the woods and the inhabitants thereof, the more chary I am of making positive assertions respecting them. These transactions may have been carried on when my back was turned, or on Sundays when I was not watching them. I believe that the gray squirrels note the location of the fallen nuts, for they dig down to them through the snow with great accuracy, but I have never thought they hoarded food for winter use; and if I am right in this, then the red squirrel cannot be guilty of the larceny with which he is charged.

Natural history is sometimes distorted into unnatural history and the statements concerning it are often, like faith, "the evidence of things not seen." So it is with the assertion that the red squirrel lays up nothing for himself; time and again I have seen him store food, sometimes in hollow trees and sometimes in ledges or piles of stones. Not long ago I watched a red squirrel carrying nuts from the top of a chestnut tree to a hollow branch on the same tree. The frost had opened the burrs, and he was making the most of his opportunities. About two minutes were required to make each trip, and if he worked many days as he did during the hour or more that I watched him, he must have accumulated a rich store for winter consumption. The fact that a hard winter thins out gray squirrels but makes no visible decrease in the supply of red squirrels would seem to indicate that the latter are the more provident. Possibly they

may rob one another and perhaps their own stores may sometimes be mistaken for the supposed hoards of the grays.

I presume I speak for the minority in saying a good word for the red squirrel. I am told, for instance, that the farmer does not like him. In fact I know one farmer who allows his mowing machine to stand out of doors all the year and sometimes does not get his corn in until snow comes, who complains of the depredations of the red squirrels. If it had not been for these destroyers I suppose he would be rich and prosperous. I am aware that some hunters do not like the red squirrel because they give notice of danger and scare the game away. If this be so, then the red squirrels should receive honorable mention in the reports of game protective associations, and great care should be taken to perpetuate the species in some localities I know of. A man who cannot kill game in a forest where there are red squirrels is deserving of sympathy; for there are few pieces of woods that do not have in them a few red squirrels.

In the Northern forests, when the winters are too severe for the larger squirrels and where, consequently, he cannot steal from them, the hardy red still contrives to keep comfortable. The cold has no terrors for him; and if nuts are scarce he can adapt himself to a frugal diet of cone kernels. In summer sun or winter blast he is the same bustling, self-reliant little chap, and I for one do not feel that I could spare him from the rail fence, which is his own particular highway, or the butternut tree which is his *dulce domum*. In my mind's eye I can see the apple, lodged in the fork of a tree, which he has purloined from the neighboring orchard and from which he occasionally takes a nibble to vary his diet of nuts; or perchance, to ward off a bilious attack. I love to hear his police-rattle and watch his antics when an enemy is near. I enjoy his social ways and spirit of *comaraderie* about a camp when he has discovered that he is among friends, and has nothing to fear. I can forgive his pranks as I would those of a mischievous boy who is so full of vitality that he cannot stop to walk. I like to hear his toenails rattling on the roof of my "leanto," and he is welcome to all the food he wants, whether he takes it with or without my permission. Call him the Puck of the forest if you will, but neither the "Ishmael" nor the "buccaneer," and let him who thoughtlessly or wantonly destroys this roguish but picturesque little animal remember that—

"He prayeth best who loveth best
All things both great and small;
For the dear God who loveth us
He made and loveth all."

The Poor Little Rich Boy

By Joseph B. Ames

"OH, boys!" cried Bobby Lee. "What a pippy car!" He stared eagerly after the luxurious limousine purring smoothly past over the hard-packed snow. "I believe it's a Rolls Royce," he added with even greater interest.

"But I thought they had a Pierce-Arrow," objected plump Harry Kippert. "You cut that out, Pewee! I've got enough snow down my neck already."

"They have," answered Bobby, who was a specialist in motor cars. "Also a Cadillac Eight and two other cars. This one must be new."

Several of the boys in khaki sighed enviously as they resumed their way toward the troop headquarters. Bill Conquest, big, broad and black-haired, raised his eyebrows. He had recently come to Riverton from the west and was not as well up on local conditions as the others.

"Who does he mean by 'they'?" he asked.

Bruce Hatfield laughed. "He doesn't. He's talking about the little Hendrey boy who lives in that big stone house on King street. You know the place, Connie. He's an orphan and lives there alone except for a raft of servants and a guardian or something who comes down from New York for a day or so once a month."

The big chap nodded. "Sure, I remember now. Poor kid," he added.

"Poor!" shrilled Kippert, staring at him. "Why, he's got two million!"

Conquest shrugged his shoulders. "And that's about all, isn't it?"

"All?" gasped Pewee Hicks. "You're crazy, Bill. Why, he's got three or four cars and a pony and——"

"They say he can't spend half his allowance," cut in Roxbury McKenna hastily.

"Yes," growled Butch Shorling. "He can buy anything on earth he wants. Think of it! But the poor prune don't do half he might. Why, if I was in his place——"

Conquest smiled faintly. "I wonder how many of you felows would be willing to change places with him?" he asked quietly.

A sudden silence fell upon the group. Shorling scowled. Hicks scuffed the snow up with his feet. Rocks McKenna flushed a little.

"I guess you've got 'em, Connie," smiled Hatfield. "I wonder how many of us would?"

"Oh, well, if you put it that way, I s'pose you're right," sniffed Kippert. "Still, his father and mother have been dead an awful long time; he must have got—er—used to it by now."

Conquest made no answer but nevertheless he did not look convinced. The thin, white face with its drooping mouth and wistful eyes staring at them through the glass of the limousine did not strike him as the face of one who had "gotten used to it." It was a rather haunting face, and it stuck in his mind after they had left their staves, haversacks and the other paraphernalia of an all-day hike in the troop headquarters and separated for the night.

Speeding briskly homeward through the frosty air, he wondered how it would feel to have no one who really cared—to be quite alone in the world save for a "raft of servants" and a guardian who appeared once a month. Reaching his corner, he yielded to sudden impulse and walking two blocks farther, turned into King street where the Hendrey mansion stood.

It was a great pile of gray set in the midst of ample grounds which took up nearly the whole square. But though smoke curled up from many chimneys, though already lights twinkled here and there through plate glass windows muffled in fine lace, Conquest shivered a bit as he surveyed the cold, gray, regular façade.

"It doesn't look like a home," he muttered, shaking his head. "It's more like an institution. I'd hate——"

He broke off abruptly and a bright flush stained his face. For there beside one of the great stone gate posts not a dozen feet away stood the Hendrey boy. He was devouring Conquest with his eyes—great, dark, wistful eyes which seemed much too large for thin face that framed them, and Connie, after staring back for a moment, broke into an embarrassed grin.

"Hello!" he said. "I was looking at your house."

"Were you?" said the strange boy listlessly. Then his eyes brightened. "They've made your assistant patrol leader, haven't they?"

Connie's jaw dropped. "How the dickens did you know that?" he demanded, taking a step nearer.

"The stripe," explained Hendrey, a shadowy smile brightening his face a little. "I thought they'd give it to you before long."

The big fellow stared at him in speechless amazement. "But—but what do you know about stripes, and—and about me?" he stammered at length. "You're not a scout. are you?"

"No; they wouldn't let me be one. I'm not sure the fellows would want me, either." His voice was dull and bitter. Then suddenly his eyes flashed and a touch of color crept into his pale face. "But I'd rather be a scout than anything else in the world," he went on with an odd, half-suppressed passion. "I've learned a lot of the tests. I've watched the fellows here for over a year. I know their names and their rank in the troop. And sometimes if I try hard I can almost make myself believe that I belong——"

He broke off abruptly, the color flaming into his cheeks like fire. His lids drooped, veiling the momentary sparkle in his eyes; he made an odd apologetic gesture with his hands.

"Well, I'll be hanged!" gasped Conquest. "But why shouldn't you be a scout if you want to so much?"

The boy shot an embarrassed glance at him. "Mr. Warrington, my guardian, won't let—— He doesn't understand. He thinks the fellows are,—are rough—— It's that beastly Mrs. Richardson. He believes everything she tells him."

"Who's she?" asked Connie.

"The housekeeper. She never lets me go anywhere or do anything I want to. She's afraid if I make friends with fellows and have them around it'll be too much trouble for her, or something."

"But don't you ever see anybody at all?"

"Oh, there are two or three from up on the hill she lets come in," Hendrey answered. "But they're just silly kids. They can't do *anything*. They're afraid of my pony and they throw a ball like a girl. They might as well *be* girls for all the good they are. I guess that's why she likes them."

His tone of intense scorn might have been amusing had he not been so desperately in earnest. Certainly Conquest felt no inclination to laugh. On the contrary

he was conscious of a growing feeling of sympathy for the boy who was proving so very different from anything he had imagined. The occasional comments of the other scouts had led him to believe that young Hendrey was pretty much of a sissy, either too proud or timid to associate with the other boys in the town. Apparently he was far from that, and Connie's interest in the situation grew with every passing moment.

"Couldn't you—er—break away now and then?" he suggested. "She can't expect to keep you tied up forever."

Hendrey flushed. "I—I might, but what good would it do—now? The fellows here wouldn't bother with me. They—they think I'm a regular ninny, and I don't much blame them. If—if I were only a scout it might be different after a while."

Conquest smiled. He had a rather nice smile, friendly and infectious. "You can't expect to make friends all at once with a bunch who don't know you," he said. "Everyone's got to make a start. Of course there are others in the troop you'd like better, but if you want to begin with me——"

"With you?" repeated Hendrey breathlessly. "Do you mean that—honestly? Why, I'd rather—— I've always thought that you——"

He paused, an expression of adoration in his eyes which embarrassed Conquest.

"Sure, I mean it," returned the latter quickly. "Why not? If you like, I'll come around once in a while and we'll see if we can't get rid of Mrs. Richardson's prejudice against—— Well, against real fellows. What's your other name, anyway? I don't believe I've heard."

"Stan," said Hendrey, his face glowing. "The fellows call you Connie, don't they?"

Conquest smiled. "Or Bill. You can take your pick. Well, when would you like me to come? I suppose you'll be pretty busy the next few days getting ready for Christmas."

He was astonished at the sudden transformation of Hendrey's face. The glow died out of it like a snuffed candle. The sparkle vanished from the gray eyes; his lips dropped sullenly.

"Christmas!" he repeated sharply. "What do you mean by getting ready?"

Connie stared. "Why—er—don't you have some kind of a celebration? and—a—get presents, and—er—give them to your friends?" he stammered.

"I haven't any friends," retorted the boy bitterly. "There's nobody to give me presents but Mr. Warrington. The only celebration we have is a big dinner, but what's the fun of eating it with just Mrs. Richardson? I *hate* Christmas!"

"Don't your guardian——" ventured the bewildered Connie.

"He's never here then. He has some kind of a celebration at his club on Christmas. He'll be out Tuesday, but he'll be going back the next afternoon."

For once Conquest was nonplussed. He was trying hard to think of something cheerful to say when the massive front door sprung open and a tall, stately figure clad in black silk stood in the opening.

"Stanton!" she called in a full-throated, slightly imperious voice. "Please come in. You'll catch cold standing there."

Hendrey caught the other's arm. "That's her," he whispered. "Come on and I'll introduce you; then it'll be easier next time."

Connie hesitated an instant and then squared his shoulders. After all what was there to be afraid of? "She can't eat me," he thought whimsically. A moment later he was on the piazza, hat in hand, and Hendrey was saying:

"This is William Conquest, Mrs. Richardson. He's a scout, and he's coming to see me sometimes."

The introduction was acknowledged by

a cool inclination of the head and without any motion to shake hands. In fact the housekeeper seemed anxious to cut short the interview, but she could have been no more so than Connie himself. He escaped as quickly as he could, and as he sped down the walk and into the snow-banked street, he shook his head regretfully.

"Poor kid," he murmured. "Think of sitting down to Christmas dinner with only her for company! She's about as cheerful as a hearse."

Connie arrived early at the headquarters of the Riverton scout troop on Monday night. It promised to be a busy meeting, for the last details of the troop's Christmas celebration had to be arranged, and the boy had a little matter of his own to attend to first; he had been doing a lot of thinking in the past forty-eight hours.

"See here, fellows," he began directly, having corralled most of his patrol in a corner, "I want to invite Stan Hendrey to our Christmas blow-out."

A bombshell exploding could scarcely have produced more effect. For a moment there was dead silence. Then every one began to exclaim at once.

"Stan Hendrey!"

"That sissy. Why he'd spoil the party."

"Turn over, Bill; you're dreaming."

"Yes, stand away from the horse's head. He might bite you."

Conquest waited calmly until the uproar had died away. Then he turned to Hatfield, the patrol leader, who alone had made no comment.

"What do you say, Bruce?" he asked.

Hatfield hesitated an instant. "If you're in earnest, Bill," he replied at length, "all I can say is that only members of the troop and candidates for election are expected."

"Supposing Hendrey were a candidate for election?" asked Connie quietly.

"G-o-o-d night!" groaned Kippert rolling his eyes. "Why, that simp wouldn't make a scout in a thousand years."

"Don't you kid yourself, Fat," retorted Conquest. "He's got the making of a dandy scout, believe me! I met him Saturday and went around again to see him this afternoon. He can tie knots pretty near as fast as Rocks, and you ought to see the firemaking set he's rigged up."

He had caught the attention of the fellows now, and, seizing his advantage, he swiftly outlined some of the impressions he had brought away from his two visits to the hitherto inaccessible Hendrey house. He was no orator. His phrases were simple, almost blunt, but into the narrative he insensibly breathed the breath of life. Somehow he made his hearers see the cold gorgeousness of the great mansion, with its absent guardian, the chill, austere housekeeper, the retinue of hired servants and that lonely boy around whom all this luxury revolved—a boy smothered in wealth, with every earthly possession which money could buy, who yet was actually starving for companions and friendliness. The climax came when he told how young Hendrey, sickened of tapestries and velvet hangings and the carved, gilded furniture with which the house was crowded, had fitted up his own room in the plainest sort of manner, with scout pictures on the walls, scout books on the shelves, scout paraphernalia everywhere, in a pitiful attempt to create a semblance of the reality he craved.

When he finished a long silence followed, broken only by the talk and laughter of other scouts skylarking at the further end of the big room.

"Gee!" murmured Rocks McKenna at length. "I never thought he was like that." "Me, neither," agreed good natured Harry Kippert. "We need another fellow in the patrol, too, now that Jack Gilson's left."

"Aw, say!" protested Butch Shorling, who seldom agreed to anything without argument. "If we got him in he'd be

wanting to run the whole show just because he'd got dough."

"Not a chance," retorted Conquest decidedly. "He's not that sort."

"And if he was," smiled Hatfield, "we've handled that kind before. It takes more than money to run a scout troop. I move we give the kid a show."

"Second the motion," promptly spoke up Bobby Lee. "But look here, Bill; I thought you said his guardian wouldn't let him be a scout. How are you going to get around that?"

"Put it up to Mr. Warrington straight," answered Connie quietly. "He's coming to Riverton to-morrow, and I'm going to have a talk with him."

He spoke calmly, but down in his heart he knew that such an interview would not be easy, and he dreaded it more than anything he had ever undertaken. But there was a streak of stubborn determination in the boy's makeup which had carried him through more difficult places than this. With the fellows won over—for each patrol had the right of nominating their own members—one big point was gained, and on the following afternoon Connie prepared, as he expressed it, to "beard the lion in his den."

The "den" in this case was the Riverton Trust Company. Conquest had learned from Stan Hendrey, whom he wished to keep in the dark until everything had been arranged, that his guardian would be there for most of the afternoon. Dressed with more than usual care, the boy made his way hither about three o'clock and after considerable delay he was ushered into the Directors' Room, where a tall, white-haired, distinguished looking man sat writing at one end of the long table.

For a moment—to the boy it seemed eternity—Connie stood before him flushed and tongue-tied. Then he pulled himself together and briefly proffered his request.

"A scout!" repeated Mr. Warrington curtly. "Humph! He's spoken about that before, but Mrs. Richardson— By the way, how did you come to know my ward? I don't recall you as one of his friends."

When Conquest had explained, Mr. Warrington sat eying him for a moment or two in silence. Then he shook his head.

"I don't think it would do," he said. "I know almost nothing myself of the Boy Scout organization, but Mrs. Richardson tells me that the—er—troop here is made up of all sorts and kinds of boys, many of them—a—not especially desirable. Stanton is not strong. These long walks and camping parties and rough and tumble doings would be very bad for him."

"Oh, but it isn't like that, sir," protested Connie eagerly. "I beg your pardon, but there's so much more to scouting than just hikes and camps. And when we are on a hike there's such a lot to see and do that we haven't much time for—for roughhouse. I do wish you'd consider it, sir. Stan is so awfully—lonely."

"Lonely!" repeated the man sharply. "Mrs. Richardson tells me he has plenty of boy friends."

Connie flushed. "There are a few boys who come around to see him," he stammered, "but—but they're little boys, and— You see, a fellow doesn't want to just stay at home and see the few who come there. He wants to go out and—and be part of the bunch, and do things they do with them, and—and get to be a little better at some stunts than the next chap. That's one of the best things about scouting. You're always on the jump learning something new and interesting. Stan would make a dandy if he only got the chance. Why, already he knows the scout oath, and the laws and a lot of knots——"

"The scout oath? What is that?"

Connie's head went up and his broad shoulders squared unconsciously as he repeated the simple lines. When he had

finished there was an odd expression on the man's face.

"Tell me something more," he said abruptly.

Eagerly the boy obeyed,, and as he outlined some of the more important aims and objects of scouting, and told of the work and play, the tasks and duties and competitions and amusements of the Riverton troop, the man's keen eyes never left his face. The recital over, Mr. Warrington arose abruptly and took a turn or two across the room, pausing finally at a window to stare thoughtfully out on the snowy landscape.

"Why are you so anxious for Stanton to become a scout?" he asked at length, turning back to Conquest.

The boy flushed, and then he smiled. "I —I guess it's because I—like him," he answered simply.

There was a faint, answering smile on Mr. Warrington's face. "I'm rather glad you do," he said slowly. "I've an idea he'll profit by that liking."

"Then it's all right?" asked Connie eagerly. "You'll let him——"

"Yes."

"That's bully. He'll be simply tickled to death. Thank you ever so much, sir."

Mr. Warrington's smile deepened and he suddenly held out his hand. "On the contrary," he said in a pleasant, friendly voice which held an undercurrent of earnestness, "it is I who am obliged to you."

When Connie left the building ten minutes later he felt much as one does on escaping from the dentist. He had dreaded the interview so much, and for a little while at first it seemed as if things were going to be quite as bad as he feared. But it was over now, and the result had even surpassed his hopes. Mr. Warrington had agreed to inform the housekeeper of the momentous decision, and he promised that not a whisper of the Christmas Eve celebration should reach Stanton from either of them, for Connie wanted to tell Stan himself.

His first impulse was to do this at once. Then a new idea brought him suddenly up short.

"Jingo!" he muttered. "I believe I'll wait till to-morrow. If he don't hear about it till the last minute, it will be more of a surprise, and will seem sort of like a Christmas present."

Next day the whole troop had arranged to meet early and go into the country for greens to decorate the scout room. Bruce Hatfield had borrowed his uncle's team, and a little after nine they were off, the sledge filled with a joyous, shouting bunch of scouts, and behind it a long string of sleds and toboggans.

The day was cold and frosty, but dazzlingly clear. The snow was so deep that when they left the main highway for a little used wood road, every one had to pile out and walk. But this only added to the fun.

In an hour the sledge and all the trailing sleds and toboggans were piled high with dark, glossy laurel, cedar boughs and great branches of pine and hemlock, whose pungent, fragrance seemed the very essence of Christmas time.

The remainder of the day was spent in turning the scout room into a bower of fragrant green, and in preparing for the Christmas dinner which was to be cooked and served there that night. It was, in fact, nearly half-past five before Connie could tear himself away and dash over to the Hendrey house.

Stan was in his room, and Connie raced up-stairs without waiting for the trim maid to announce him. The voice which answered his knock sounded fretful and melancholy, but as he flung open the door, young Hendrey sprang up and came toward him, his face glowing with pleased surprise.



"Awfully glad you could come"

"Oh!" he cried delightedly. "I never thought you'd come—to-day."

Connie beamed. "It was a hard job; I've had about a million things to do. I only dropped in for a minute to——"

He paused and Hendrey's face fell. His lips quivered for a second, but with an effort he conquered his disappointment.

"—to get you," finished Conquest blandly.

Hendrey stared. "To—to get—*me!*" he repeated in amazement.

"Sure. Hustle into your things. We haven't any time to waste."

"But where?"

"Never mind that," grinned Connie. "Just come along and you'll find out. It's all right. Mrs. Richardson knows about it."

He took the bewildered boy by one arm and led him down-stairs. In a daze Hendrey struggled into coat and cap and together they left the house. The night was very cold and clear. In the west a faint glow lingered, but overhead the vaulting arch was blue-black, spangled with myriads of brightly twinkling stars. As Connie led his friend across the street, the snow creaked frostily under their feet.

Scarcely a word was spoken until they turned into Main street and headed toward the scout headquarters. Then Hendrey pulled up suddenly.

"Connie!" he exclaimed in a low, uncertain tone. "We're not—we're not going to——"

"Surest thing you know," broke in Conquest jubilantly. "The troop is having a Christmas blow-out and you're invited. I saw Mr. Warrington yesterday and got him to let you go."

"Oh!" gasped the boy in a shaky voice which was almost a sob. "Oh—Connie!"

The big chap squeezed his arm reassuringly. "He's all right," he continued. "He didn't know much about scouting, but he knows now. Here we are. Now don't get stage fright or anything. The fellows are fine, and you'll like them in no time. Come on."

Up the steps they went and Conquest threw the door open. A stream of light poured out, a babel of talk and laughter assailed their ears, while the delicious odor of roasting turkey told them that the dinner was well under way. Stan's face was white and his eyes wide and dark with feeling as they roved over the big room filled with joking, laughing, chattering boys in khaki. Then his color returned, and as the door slammed behind them, he looked up at his friend.

"It's great—simply great," he murmured.

"Looks fine, doesn't it?" agreed Conquest. "It took a pile of work to fix it up, but I guess it was worth while. That hemlock has a regular Christmas smell about it. Come along this way and meet Mr. Meredith."

There was a touch of shyness about Hendrey as he shook hands with the dark-eyed, pleasant faced young scoutmaster he had noticed so often with the boys. Then, when the scoutmaster turned back to his task of superintending the cooking of the dinner in the great open fireplace, Bruce Hatfield strolled up smiling.

"Awfully glad you could come," he said as he shook hands. "I don't know how you'll make out about eats, though. Every fellow in the troop thinks he's a star cook, but when he gets down to cases something weird usually happens. What do you think of Fat, Bill, putting the turkey in the oven without removing its—er—vital organs, as Prof. Wilson calls them?"

Connie roared, but Hendrey, who saw Kippert approaching, politely tried to hide his amusement.

"Hey, Fat, where's those eggs?" yelled a voice. "I want one for the coffee."

"Eggs?" repeated Kippert with a

solemn face: "Now, I wonder if they could have been—mis-*laid?*"

Bestowing a placid wink on Hendrey, he ignored the ribald remarks of the other two and strolled off in search of the lost articles.

Stan giggled. Somehow he felt as if he had known Kippert for ages. A little later he was chatting pleasantly and quite without sense of strangeness with Rocks McKenna.

One and all he found the boys friendly, in a simple, natural way without trace of aloofness or reserve. They treated Stan exactly as if he were one of them, and to the boy it seemed incredible he had not known them always. It was all so much beyond anything he had dared to hope that he fairly radiated happiness. But when at last he stood beside Connie on one side of the long table that groaned with good things, he felt a sudden stab of pain. The minutes were flying swiftly. Presently it would all be over, and he would have to say good-by. And after such an evening as this, how doubly drab and bitter that old dull life would be!

"Are they all scouts," he whispered wistfully to his friend.

"Yes,—or candidates for election," smiled Conquest.

Hendrey caught his breath and his eyes widened. "You—don't mean——"

Still smiling, Connie nodded. "Sure. I fixed that up, too, with Mr. Warrington yesterday. There'll be an election next week, old top, and I don't guess there's any doubt as to what will happen to you then."

Something caught Stan by the throat and his lids drooped swiftly to hide the bright, sudden glitter in his eyes.

"Now, fellows," said Mr. Meredith from one end of the table. "The scout oath."

Two lines of trim, erect figures drew up to attention and their voices rang out in unison. For a moment Hendrey could not speak. Then he pulled himself together and joined the others. His tones were a little shaky at first, but swiftly strengthened, and he ended as clear and strong and earnest as the rest.

". . . to keep myself physically strong, mentally awake and morally straight."

As Stan Hendrey spoke them, the words became at once a prayer, a thanksgiving and a promise.

Destroying Destructive Wild Animals

The danger of wild animals in the United States to-day may not seem to be very great, but the Government nevertheless employs a force of 500 men to fight them and spends immense sums every year in the campaign. The fighting forces are organized under the Bureau of Biological Survey of the Agricultural Department. Last year 32,000 wild animals were killed under their direction. The force of skilled hunters are constantly employed in the work. This warfare, it is estimated, saved at least $5,000,000 worth of stock on the farms throughout the country last year. In a single section of Colorado seventy-five miles in diameter it is reported that twenty-five sheep a day were killed by coyotes.

The loss of cattle, colts, pigs and sheep in the far west due to wild animals amounts every year to tens of thousands of dollars.

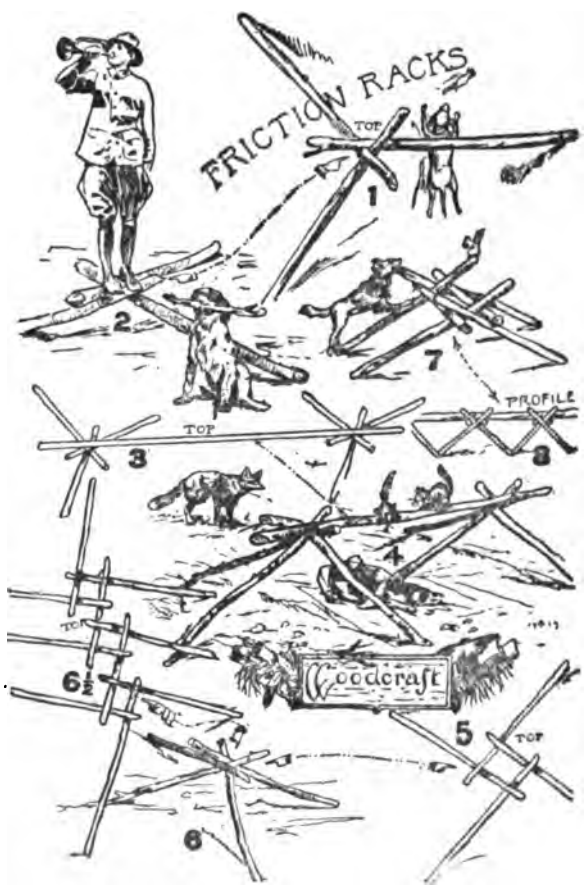
Pioneering and Woodcraft

By Dan Beard

How to Work with No Implements but Your Axe

DID you ever hear tell of the Pithecanthropus Erectus? He was some guy! Scientists who have matched his bones together tell us that he was not an ape but that he was a man. He was a man, however, who did not know how to build a fire; he was about as handsome as a gorilla, and about as intelligent as Barnum and Bailey's "What-is-it." Nevertheless, in spite of all this, he possessed an intimate knowledge of woodcraft; had he not he could not have lived at all, for a knowledge of woodcraft was necessary to his existence.

Some millions of years later there lived in Europe people called the Neanderthal men. Europe, at that time, if I remember aright, and I have a long memory, was covered with big ice fields, in other words, with glaciers. The ice, as it crept over the land, caught the great hairy rhinoceros and kept it perfect in cold storage until it was discovered not many years ago by white men. It also caught the big hairy elephant of that time and put him in cold storage in order that you scouts could know what kind of animals then lived. This elephant was so well preserved that the skin and the hair were all there and the wolves and the dogs ate the flesh. The bones from the hunk of this cold storage meat are mounted, as a perfect skeleton, in Russia; at least, this skeleton was in Russia until the Bolsheviks took possession; they may have smashed it up as being the bones of an aristocrat.



Well, now, the conclusion we are coming to is this: that the Neanderthal men, shivering and chattering around among the glaciers, saved themselves from being put on cold storage like the rhinoceros and the elephant, by discovering how to build a fire; they were the first fire-makers.

In the head crowned with matted hair there was a brain, and the brain began to develop by use. You see, it was up to these fellows to build a fire or die; they did not want

to die so they built a fire. Some great men among them, some Sir Isaac Newton, some Ben Franklin, some Edison, discovered that friction would make a fire, then he discovered that fire was warm and would stop his teeth from chattering. The Neanderthal man's fires were the first camp-fires, the first council fires; he was the first to keep the "home fires burning," and he handed the tradition of the fires down from father to son until they reached us.

Now you know that every fire-maker knows so much better than any one else how to make a fire and how to mend it, that one endangers his friendship when he monkeys with another man's fires. Therefore, this rule has been established:

Never touch another man's fire until you have known that man seven years; after that time you are supposed to have mutual confidence in each other's ability to build and run a fire properly.

It was the American Indians who gave the council fire its prominence and significance. Around the fire they decided the fate of prisoners, the fate of the tribes, and around the fire they danced their weird dances, among others the scalp dance.

It was at one of these council fires that the Indian who was baptized by Father Visitor Oracio Police, under the name of Don Marcus, presented the Reverend Father with the scalp of the only Indian of the Noabonoma Tribe who opposed the good Christian teachings.

It was at a gathering around the camp-fire, in that country occupied by the Spaniards to the south of us, that the visiting missionaries met the Pima natives of Quiburi, "very jovial and very friendly," and they were having a scalp dance which was so pleasing to their visitors that the Señor Captain Christobal Martin Bernal, the Señor Alferez, the Sergeant and many other "Señors" entered the circle and danced merrily around with the natives.

These old Spaniards and missionaries were learning woodcraft from the Indians. The scalp dance did not shock them because not only the Spaniard but the Dutch, the French and the English were accustomed to even more brutal things than a scalp dance, and the late war has shown that some people have not yet fully advanced from that age. But what we are driving at is this: that the greatest woodcrafters were the American Indians and that our American scouts, Boone, Kenton, George Washington, Cressap, George Rogers Clark, and the rest of the push, learned their woodcraft from the Indians and handed it down to us.

Now then, boys, pioneering and woodcraft are so closely related that it is very hard to tell the beginning of one and the ending of the other. But we call it all woodcraft wherever we use nothing but material found in the woods. For instance, all the friction racks and bridges in the construction of which we use neither nails nor cord are properly woodcraft work, they are such work as the Neanderthal men might have done—but did not do—they are such work as the American Pioneers might have done—and did do.

Let us take the simplest form of a friction rack, Fig. 1; but do not try to make this with scouts' staves, they are too smooth and the rack will not hold together; these racks must be made of sticks with the bark on.

The object of the Kenton rack, Fig. 2, is to make a contrivance which will serve to keep one's pack, coat and hat off of the wet ground when one comes into camp on a rainy or snowy day, and desires to proceed with the work of building a fire and making camp.

First cut three stiff sticks, put the end of one stick over the other, and the end of the third stick over that as in Fig. 1,

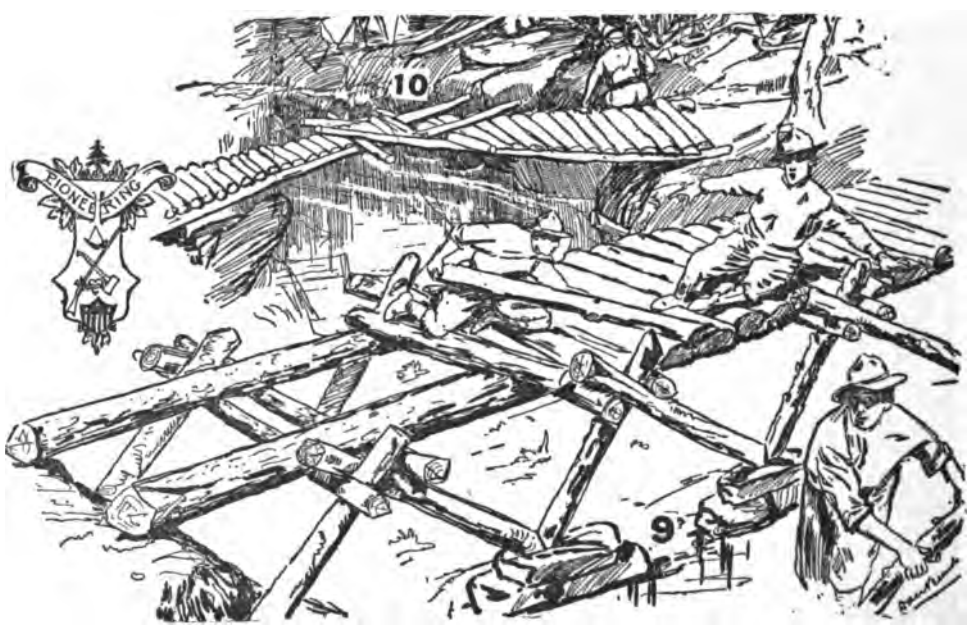
which will not take you a minute to do, but will serve as a temporary rack upon which to hang your duffel. Fig. 1 is a top view of it, an airplane view. Fig. 2 is a perspective view of the same thing, while Fig. 3 shows the top view of an extension of this form of rack called the Boone rack and made by erecting two Kenton racks and connecting them by laying across, from one to the other, a waugan-stick. Fig. 4 shows a perspective view of this Boone rack.

If you so desire you may use four sticks and build a Crockett rack. Fig. 5 shows the top view and the arrangement of the sticks, while Fig. 6 shows a perspective view of them, and Fig. 6½ shows how this rack may be multiplied and extended indefinitely. These racks are all for hasty and temporary use; and I myself have found them on occasions most useful, for no one of us, even though hunting hardship for hardship's sake, desires to throw his coat down in the sloppy snow or mud just to show how tough he is.

A long time ago I taught the scouts of the Boy Pioneers how to make a bridge, and those bridges are now being built by scouts all over the country. They are known as the Boy Pioneer bridges, and are built by first making racks like that shown in Fig. 7, and resting stringers across from one rack to another, as shown in the profile Fig. 8, or using the rack itself as the bridge.

Last season we built a great big Pioneer bridge which is too massive and too heavy to be designated by the name of the *Boy* Pioneer. Although it is built upon the same principle (Fig. 8) as the Pioneer, still it is a bridge requiring the strength of a full-grown man to erect, or at least of husky scouts, consequently we have named it the Roosevelt bridge, because it is husky, because it is useful, and because, like Roosevelt, it was born here in America.

Of course, such a bridge could be lashed together with rope, nailed with spikes, and boarded over the top. The Roosevelt bridge, however, can be built substantially, firmly and securely without the use of anything but the ax. Of course, the builders must have the gumption necessary for success in any activity.



Scout Marching Song

Pioneering and woodcraft is essentially American, and every scout should have a thorough knowledge of the subject. Remember, you chaps, this fine, big, husky country of ours was established by men who were experts in ways of the woods, and we should never let the knowledge that they have handed down pass out of existence. Study woodcraft; study it hard. There isn't a finer subject or a more thoroughly American subject that you can take up as a hobby. Learn all the wrinkles of the backwoodsmen and the pioneers, learn how to build fires, how to build shelters and shacks, learn how the old rivermen constructed those romantic flatboats, learn how the log cabins of Boone's day and later were put together, learn all these things and you will know the road to happiness.

Every real American boy can become measurably expert in the construction of even the highly interesting equipment of the Indians. Dugout canoes are not hard to build if you will take time and put good honest effort into learning how the trick is done. Likewise that famous birch canoe of the Indian can be duplicated by white men if said white men are only willing to put the energy into learning how.

But you fellows needn't aspire to birch canoes. There are things a little easier that you can undertake by way of starting. The bridges mentioned above are some, but there are a host of others. Get some books, good books, on the subject of woodcraft, nature study, campcraft and pioneering. Get your foundation of book knowledge, then go out into the open and try them out. Don't be discouraged with a single failure or a score of them, but stick to it constantly. Then when you are well started on the way toward becoming proficient in woodcraft get some of your chums interested, get the rest of the fellows in your troop working, get them enthusiastic about good craft of the pioneers' kind, stimulate their interest in the wood, in tracking, trailing, reading wood signs, in building; work with them and see if you can all become so proficient that if it were necessary you could start out with nothing but an ax and a jackknife and carve your living from the wilderness. When you are able to do that, fellows, you will be real *he* men that the nation will be proud of, and I will be ready to take my hat off to you.

Scout Marching Song

By Berton Braley

We're a scouting troop that's flown the coop
For a rollicking, roving tramp;
We're a bunch of boys who know the joys
Of making a forest camp;
We know the trail when stars are pale
And the path by the light of day,
And our haversacks are on our backs,
So let us be on our way.

Oh, we know the place where brook trout race,
And the haunt of the beaver, too,
And the secret ground where nuts are found,
And we'll show the spot to you.
We can teach you to make a fire and bake
A meal that will fill your tum,
And we'll make you a scout beyond a doubt,
So pick up your feet and come.

Pops of Popular Science

By F. A. Collins

The Oldest Drawings in the World

THE oldest drawings in the world are believed to have been made about 25,000 years ago by prehistoric man in the caves of the Pyrenees Mountains. Some of those pictures show remarkable skill in drawing, suggesting that civilization was comparatively well advanced at this period. From the relics of this period it is believed that these men had a religion of some kind, that they buried their dead, were governed by chiefs and made instruments of flint. Examples of their painting and sculpture have been found. As man goes about the earth analyzing and dissecting every object a great amount of scientific information is being gathered which will some day enable him to solve this great mystery of his early history.

A Curious Fatigue Test

A unique method has been discovered to measure just how tired one's body becomes after hours of work. A line is drawn across the forearm with a sharp point, not sharp enough to break the skin, but only to drive out the blood and leave a straight white line on the skin. An observer holding a stop watch measures the time it takes for the blood to rush back into the skin and the white line to fade. The exact number of seconds and fraction of a second is recorded. This test is repeated say at intervals of one hour all day until the working hours are over. When these readings are plotted on paper a curve is drawn which tells at a glance just how one's energy ebbs throughout the day. There is always a marked jump in the line after lunch hour.

Don't Push

Many interesting things have been learned of late about the mechanics of great crowds. As one looks down upon a mass of people or struggles through it, the group seems to be governed by no rules whatever. When a crowd is lined up along a sidewalk to watch a parade, for instance, the greatest pressure is exerted on the third line behind the front. It has been found that the mass force of a crowd even when each man in it is unconscious of pushing, is often irresistible. Each one pushing just a trifle develops a force which will tear down the heaviest timbers. The police who attempt to stop it are swept aside. People are crushed to death in this human vise.

Unlimited Power

So distinguished a scientist as Sir Oliver Lodge has suggested that we will some day run all our machinery by the mysterious atomic energy and that an ounce of matter may suffice to run a steamship across the Atlantic. It is known beyond any question that an unlimited amount of energy is stored up on every hand in very compact form. We have seen how radium throws out its mysterious force for thousands of years. Some of these days a scientist, perhaps one of the boys who reads this page, will discover the great

secret of how to liberate this energy and transform the machinery of the world.

Some Figures on Forests

The quantity of lumber cut every year in the United States is three times the natural growth. At the present rate of destruction the forests will have disappeared in less than a generation. The center of the lumber districts has been pushed rapidly westward until to-day it has reached the state of Washington, and is approaching the Pacific coast. Every year some 30,000,000,000 cubic feet of wood are cut in the United States, the crop being valued at nearly $2,000,000,000. The most serious drain upon the forest resources is for railroad ties, and the demand is constantly increasing. In spite of the apparently universal use of coal for heating, the United States still burns up in the course of a year 90,000,000 cords of wood. There are at present upwards of 200,000,000 acres of land set aside as national forest land in the United States, Alaska and Porto Rico. The Government appropriates more than $5,000,000 a year to protect and cultivate these forest lands.

The Oldest American

Several scientific investigators agree that the Indian as we know him is a comparatively late comer. Whether he arrived by way of Alaska from Asia may never be discovered, but the relics of his civilization are believed to date back not more than a few thousand years at most. There is much evidence on the other hand to indicate that men lived in North America at the close of the Ice Age and perhaps during the glacial period. The evidence is found for the most part in the Ohio and Delaware valleys. The rude instruments these men used in their hunting and homes have been found buried deep in gravel which is believed to date back to the close of the Ice Age. If this be the case men lived in America 10,000 or 15,000 years ago. Some geologists believe that the gravel deposits are considerably older. How these men found their way to America in remote antiquity, how much of the land they occupied and where they disappeared to are perhaps the most fascinating problems in American archæology. The patient investigations of many trained scientists are carrying us every day nearer the answer.

A 200 Year Job

At the present rate 200 years will be needed to finish mapping the world. Great areas remained unexplored and little is known of millions of square miles of land. By using the aeroplane for map making this work may be done in the next twenty years. Instead of climbing mountains and laboriously measuring the land foot by foot, we shall do the work while flying a hundred miles an hour. A special camera is placed in the bottom of the car and photographs are taken automatically, so many to the second or minute. These photographs are then fitted together in what is known as a mosaic map which shows every house of towns or cities and every road and tree of the country. No such maps have ever been made before. The aero map is one of the inventions of the war which will prove invaluable.

The Train Sheet

The familiar railroad time table, with its figures and dotted lines, is only a small edition of the real table by which trains are run. The official time table is a very large and complicated affair and could not possibly be carried about in one's pocket. It would require a sheet nine feet long and three feet wide, ruled in three-eighth-inch spaces, to record the trains which pass out,

of a large terminal station in a single day. To overcome the necessity of so cumbersome a piece of literature, an hourly time table is used. The train dispatcher's time table, for example, contains the number of trains, name of conductor and engineman in full, the number and kind of cars in the train, the time it left the station, the time it left the train yard and the time it passes various signal stations for many miles.

Food Analysis

America leads all other nations in analyzing the value of the foods we eat and the best way to make them nourish us. Scientists have found that we often get little of the real value of our foods, so that a great deal goes to waste. It is exactly as if we took just one squeeze out of a juicy orange and then threw it away. The new science has been developed largely since the outbreak of the war. Many interesting experiments have been carried on in Teachers College in New York which are being watched by scientists all over the world. Some tests are made with white rats, others with human beings. The War Department has utilized this information in fixing the rations for our soldiers. In a few years people will look back upon our wasteful, unscientific habits of to-day with amazement.

A Water Drill

Constant dropping as every one knows will wear away a rock. A stream of water under pressure eats its way through solid earth in a surprisingly short time. Making use of this principle effective drills are made by employing a hose carrying a small stream of water. The pressure of an ordinary water main will answer the purpose and give the stream a surprising drilling power. The stream is directed through a long pipe perhaps six feet in length. As the stream of water bores its way the pipe is lowered. A hole six feet deep may be drilled in a few seconds. The water drill is especially useful in drilling in sand when the water has a surprising cutting power.

A Wonderful Invention

When Thomas Edison was asked recently what he considered the greatest inventions since the electric light, he mentioned first, wireless telegraphy and second, the American process for making nitrogen from the air. Before the war we depended upon Germany for our supply of nitrogen, and especially for the fertilizers which made our farms so productive. The Germans had deposits which they only needed dig out of the ground to sell at enormous prices. To-day there are great plants in the south where the air is put under pressure and frozen to a liquid form from which in turn the nitrogen is extracted. The supply is, of course, absolutely limitless. By harnessing waterfalls to these plants the work is done very cheaply.

Aeronautic Maps

Geography becomes a fascinating science when studied by means of aëronautic maps. The most detailed maps, painted in the brightest colors appear flat and dull by comparison. The aero-map is made of photographs taken by a camera placed in the floor of the aëroplane cabin and the pictures are matched together to make a complete record. When made from an elevation of a few hundred feet the details are marvelous. It is curious to find that the most familiar country looks strange and unfamiliar when reproduced in this way. We are so accustomed to looking up at buildings or trees that the view from above transforms everything.

Pops of Popular Science

New Bells as Good as Old

We have often heard of the beautiful silver tone of very old church bells in Europe and some have even been bought at a great price and brought to America. It was supposed that after a bell had rung regularly for one or two centuries some mysterious quality was developed, and the beautiful tone could be acquired in no other way. An ingenious American studied the problem, however, and decided that the silver tone was simply due to the fact that the clapper of the bell had worn itself and the bell by continued striking, until the two fit closely together and that the shape of the metal and nothing else determined the tone. He began to make bells by casting them so that the clapper and the bell fit each other properly, and the mellow silvered tone was obtained at once. To-day we are manufacturing such bells and selling them abroad.

Why a Ball Curves

There are many scientific explanations to account for the curve of a baseball. It is generally agreed that the rotary motion of the ball after it leaves the pitcher's hand so affects the resistance of the air that it is deflected from its original course. A fascinating experiment may be made by spinning a marble in water. The resistance of the water being much greater than that of the air, the effect is exaggerated. The marble should be dropped in water two feet or more deep. By spinning it fast or slow and in various directions the curve of the most skillful pitcher can be reproduced.

Life Saving Aloft

Several inventors are at work on life saving devices for aircraft. Air travel is so new that little attention has been paid so far to providing some means of escape in case of accident. The first airship to be equipped was the R34, the great dirigible which twice crossed the Atlantic. She carried parachutes conveniently placed on her "cat walk" for every passenger. The latest forms of parachutes are practically 100 per cent. efficient. It has been found that one travels fifteen feet a second before the parachute opens, when the pull in the check which follows is 900 pounds. The new parachutes will have shock absorbers. In a few years aircraft will probably have to carry parachutes for all on board just as steamers now carry lifeboats.

A "Close Up" Photograph of the Moon

With the aid of the world's largest telescope recently installed at the Mount Wilson Observatory the moon has been brought nearer the earth than ever before in history. The reflector of the great telescope measures 100 inches in diameter, or more than eight feet. The observatory in which this glass is mounted is 100 feet and its dome measures 100 feet in diameter. The whole stands at an altitude of 6,000 feet. The photograph just taken of the moon measures four feet in diameter and reveals details of the moon's surface never before seen by the human eye. With the aid of the great telescope it will be possible to observe 300,000,000 stars.

The Earth's Crust

The most important scientific investigation of the past year in any country has probably been the attempt to measure the earth's crust. We know very little about the shell on which we live. Scientists have been studying the problem in Hawaii, Tuscany, and in Salvador, where the opportunities for investigation are especially favorable. Much data new to science has been collected concerning the shell, its composition and probable age. Still other tests have been made in New South Wales,

where a great reservoir concentrates an immense weight of water on a limited area, and instruments have been devised to measure the movement of the earth's crust under this weight. New light has thus been thrown on the action of volcanoes.

Our Air Forestry Service

Forest fires are now being fought successfully with the aid of aeroplanes. The Government maintains a regular air service for the purpose in California and these flights will soon be extended. Flying at more than a hundred miles an hour the scout is able to observe great ranges of mountains in a few hours. When a fire is discovered the observer can communicate with his base by means of wireless telegraphy and summon aid. The aeroplane also carries fire extinguishing bombs which, when dropped from high altitudes, will do the work of a great gang of fire fighters in a few minutes. These observation flights are made at an altitude varying from 1,500 to 2,000 feet, although fires can be detected from a height of even 10,000 feet.

The Largest Animal

Most boys have seen pictures of the huge lizard which roamed the earth millions of years ago, and is supposed to be the largest animal which ever lived. Searchers in Utah have discovered some bones of an animal which was twice the size of this great prehistoric animal. A hole 600 feet long and eighty feet deep had been dug when some one claimed the land. The Government thereupon created a National Dinosaur Monument, comprising the locality, which will be protected until the investigations are finished. The work is being directed by the Carnegie Institute, which discovered and assembled the skeleton of the familiar dinosaur.

"Grasshopper Bait"

A year ago the grasshoppers ate up nearly $100,000,000 worth of our winter wheat. Science at once set about devising some scheme to control this pest. They mixed a concoction, on an enormous scale, known as "grasshopper bait," making 4,565 tons of it, or enough to fill 183 large railroad cars. To mix this bait they used 500,000 lemons, eighty-three tons of white arsenic and other ingredients in similar proportion. The bait was then scattered over an area of 40,000,000 acres in Kansas. The grasshoppers ate it freely with the expected result. This year there are no grasshoppers in Kansas.

The Smallest Camera

The smallest camera in the world which has actually "taken" pictures is doubtless the eye of the frog. It has been found that if a frog is kept in the dark for some time the retina of the eye on being dissected is found to have a purple reddish color which fades away or becomes bleached on exposure to daylight. If the eye be placed in front of a window and left there or "exposed" for some time, and then fixed in a four per cent solution of alum the optogram is partially fixed and retains an inverted picture of the window with its cross bars as pictured on the retina. It is claimed that by a similar photographic process the last picture or image retained by the eye of a dead man or animal may be preserved.

Merchant Submarines

Some naval experts believe that the submarines of the future will be designed largely with the purpose of carrying huge cargoes under sea. The fighting qualities of the submarine will not be neglected and they will be equipped with comparatively large guns.



The Mysterious Stranger

A Christmas Story

By John R Neill

IT was Christmas Eve in the year of Our Lord 960. A quick twilight had spent itself, and a soft flurry of the snow that had been falling all day still blew among the trees, banking itself around the roots and falling from the upper branches as they swayed in the growing gale. Trudging through the snow was the bent figure of an old man, his hood and mantle covered with snow.

Falteringly he kept on until he reached a small house with a few outbuildings enveloped, like himself, in a garb of somber white. He found the snow so banked against the door that it was not without some labor that he cleared the entrance.

Inside all was warmth and cheer; holly and evergreens draped the corners and mistletoe hung in bunches from the low rafters, rough hewn and seemingly new.

He bowed low as he put his cloak aside, trying to conceal a scroll fastened to the pouch that hung from his girdle.

"My humble respects to your gracious ladyship," he said, turning to a matron of imposing dignity who sat a little back from the hearth arranging a frame for needlework. And as he turned, his eyes lit up his face and snowwhite beard.

Though seared with years, fire still lurked there, fire fed by habits of thoughtfulness.

He was about to continue when from a passage a boy of eighteen came lightly forward and slipping his hand into the old man's said gaily, "What have you here, my precious oracle? Soothsayers are rare and, by the poker, it would seem that our ancient truth is failing. Come, now, tell me the tale, for all the night long on yesternight I spent in vigil at St. Benedict's shrine, to purge my honor and my sword as Sir Hector bade me. All these labors are as nought should I not gain my spurs at last. Please, Matholch, come and tell me what it portends." And he held the parchment to the light.

HIC JACET ARTHURUS, REX QUONDAM, REXQUE FUTURUS

Laughing he read aloud. "As you love me, tell me of this mystery."

HERE LIES ARTHUR WHO ONCE WAS KING AND A KING TO BE

solemnly explained the old man. "It is a somber token; its spell is potent from All Hallow E'en till Candlemas, and, I beseech thee, do not treat too lightly of these mysteries. My gracious Lady Mortinac," he added, turning to the mistress of the house, "your Guilford has a spell of cheerfulness that from my dry bones has long

departed. His heart is like the rabbit's ears, alert to hear."

Sadly the lady questioned: "But could they hear as surely as the hare's where danger lurks?"

The seer bowed his head.

"Woe, woe, woe is me," he wailed.

This might have continued had not Guilford, seeing how the old man's mind was bent, tried to console him and lead his humor to more cheerful themes.

"Then do tell me a tale from your vast store for, as I have said, all last night I spent at the altar."

Slowly, as he ate and drank, the old man smiled, trying to find a thread upon which to weave a tale; then he began:

"This story is spun of the filo-floss of fancy of dim years, of Mimi Bois and her fair sister, Guenevere, both radiant as the morn, with hair of silver and of night, who grew from the roots of the trees and there remained, set apart, but spent the time in sending messages by passing pilgrims to swains both far and wide, until their fame was noised so wide throughout all Christendom a quest was——"

"But wait! What may that be?" exclaimed Lady Mortinac, hurrying to the door, "I hear voices."

With a hurried knock a lady clad in snow-covered hood and cape rushed in and threw herself, disheveled, at the lady's feet. Her words were choked with sobs and she shuddered with terror as she spoke.

Guilford Mortinac stepped back as his mother soothed the terrified girl.

"Why, it is Mistress Enid St. Marys! My sweet young friend, pray be calm! What brings you here this boisterous night? How say you?"

"To you, my dear, dear friend, my mother's friend, you ask aright what brings me here! Since the false usurper, Guy Howlett, in league with the Abbot of Monmouth whom he has tricked into submission, has broken into my castle by force of arms and overrun my heritage like frenzied fleas."

Still weeping, the maiden told of the assault of the castle Avedon, her home, by a band of robbers led by Howlett, a cordwainer from the north. Knowing of this retreat in the greenwood, here she had sought solace, after sending a report of her evil fortune to the Bishop of Hereford.

By wiles and petting, the Lady Morganne Mortinac soothed the distracted maiden with hope of assistance that would come to rid them all of this boor, when into the room, clad in full armor came Guilford. He stepped to his mother and, still smiling through his visor, said:

"Behold the rabbit's ears! From you, fair Mistress Enid, by the grace and favor of your mother's memory, I crave the acceptance of my sword in your defense."

The words had a hollow sound, cased as they were in a helmet of steel.

It was with a cumbrous stride that Guilford passed out the door. No sooner had he left than old Matholch, the hermit, fell into a trance, uttering incantations weird in the dim room whose silence was broken only by the sobbing of the girl and the soughing without.

Soberly Guilford went through the snow to where a score or more of faithful men at arms stood with downcast heads.

There, towering among the others, he saw Tud Gildas, who had been esquire to his father, Sir Modred Mortinac. Tud had always been a squire, for knighthood required for its maintenance funds that poor Tud lacked, though of hardihood and valor he had plenty, and under the standard of Sir Modred he had fared much better than he would have under his own.

No one spoke; all stood mute and tense.

"A sorry night methinks," said Guilford at last.

"Aye, sire," said Tud, "but Gwidd and Lucan, Caw Lawyen and Lagafuerys, and all of us here, would we were not here but back at Avedon to cut a reeking path, by heaven's grace, through Guy Howlett's churls into his black heart."

"Rightly said, and by my conscience, my pathway beckons too in that direction," returned the lad.

"At the onset," Lagafuerys explained, "our Mistress commanded us to bring her to your mother here; the time was short and our forces, many of them gone to Hereford to hold high carnival with Galwin's men, had left us to escape the havoc of the siege by secret passages, once we cut our way through the cordon of Howlett's burly varlets, our journey was without mishap, and here we are, full twenty-seven men and armed."

"Come, come," said Guilford, "you are unseemly sad! By ruth, we shall assail their ruthlessness. Bid the men prepare, they'll find me eager as any of them to return."

With the treachery that resulted in the death of Guilford's father and the pillage of his estate, and that was followed by ignoble ravages and the spoliation of the district around, and had put the country well nigh to Hereford in terror of Howlett and his band, none had suffered more than Guilford and his mother, who had been forced into exile to eke out bare existence in the greenwood.

From position and power his family had fallen until now it seemed Howlett would soon break the boy's spirit by persecution, for the king was in France and Enid's father, the Earl of Narberth, was with him, fighting the wars of his country overseas.

But time was not lost, since the issue of the night pressed hard on the young squire's patience, and shortly the cavalcade was on its way, galloping into the highway that led to Avedon, four and twenty miles beyond.

Not a word was spoken, so absorbed were they all as they rode through the silent snow until nigh to eleven miles had been covered. Then suddenly they perceived, though the night was blacker than an ugly dream, that they were not alone.

Some one was leading them.

Hard upon this discovery, some two hundred rods ahead the clatter of arms and thunder of horses' hoofs gave them warning.

They knew Howlett must be sending a detachment in pursuit along the trail left in the snow.

Quickly they prepared their formation, Guilford and Tud Gildas ahead, Gaw Norbert, Balmont and Caw Lawyen abreast, all lowering their spears as they plunged into the assault in rows of three.

Into the chaos of blackness they swept and Guilford, elated by the frenzied action, met the crash, again and again.

Straight on, past curses and surly groans mingled with breaking gear and harness and underbrush as men and horses were hurled aside, they swept; nor did they stop to see what damage had been done till, a mile ahead young Guilford brought his followers to a halt and found little need to tarry for, beyond slight wounds, the band had stood intact and in good form.

Their opponents seemed to have been unprepared, their rout was complete and the next day showed the toll they had paid in men and horses.

Elated by their first encounter Guilford and his followers rode on, compact and resolute, taking their stand with determination on the side of truth and valor.

Ahead of them the stranger still rode lightly, giving, they felt rather than knew, courage to all.

Reckless they seemed, perhaps, a mere handful and vastly outnumbered, assailing a force that was powerful and drunk with

success, successes of treachery and loot, defying even the King himself, that grew from weeks into months of lawlessness and terrorizing. These reflections crowded through Guilford's mind, but instead of fear, he felt his spirit nettled into action.

On they went, trees glided past, the lodges of freemen and hamlets of serfs and villains, all sleeping under the mantle of snow, until a full hour's riding brought them to a hill from which they could see through the trees the grim towers of Avedon. And in the van still rode this stranger.

Approaching, they saw that the portcullis was drawn up and the bridge was down. The entrance gave the castle the appearance of a yawning monster with its mouth open, ready to swallow any one within its reach.

While yet somewhat off they stopped to rest and give themselves time to arrange their plan of battle. From the tallest tower they could see dimly the bodies of the former defenders of the castle strung on gibbets, swaying and turning in the wind and snow. Perhaps they had been heard from the castle, or seen, for a harsh grating sound began, and slowly, with creaking and clanking of chains, the great drawbridge began to move.

They were now on foot and, with one impulse, they went forward to find the drawbridge rising, inch by inch, until it was breast high.

Tud Gildas and Guilford cleared it and Balmont with two others followed rushing forward in a body to the passage that led to the court yard as the varlets inside ran to give the alarm.

During this short lapse the defenders turned on their assailants but it gave the attackers time to release the windlass and let the drawbridge down while the whole band crossed.

From inside the castle men sprang up everywhere and rushed into the mêlée.

Always in advance their stranger seemed to lead and Guilford for one short moment plainly saw him, a giant in stature and of kingly bearing. It was for one moment only, for they were beset on every side by Howlett's knaves, bands of thieves, surly varlets, all the rips of discord from the isles, led by Guy Howlett's son Big Gwilim, as precious a cutthroat as could be found in many leagues. Him it was young Guilford most wished to engage and each turn was bringing him nearer to his goal.

Thrice he was rushed by a dozen men, but he held his ground with his back to the wall till men in mounds lay on the flagging before him. Sword blades and maces rained on his helmet, and every blow was returned with a zeal that told well of old Sir Hector's training.

Each wave of battle was met and parried as, one by one, the enemy's forces broke. It seemed more like a prearranged show than the vital combat that it really was. So unerring was the plan of the attackers that the courtyard, which hardly a half hour since teemed with cutthroats in armor and yeomen, seemed, in the dim light of the torches, to be deserted save for a few scattered groups that held the entrances to the castle doors.

A little to the right, on a semicircular porch, was the portal leading to the tower; there at last Guilford saw Gwilim stand. He was clad in the armor of Guilford's father, Sir Modred, taken after he had been set upon and murdered by Gwilim at the command of Guy.

Tud Gildas at his side, Guilford with a tense heart, pressed forward and with his broad-sword parried at Gwilim's throat, gave him the challenge, though he was full two hands less in height.

Knowing that one of Guilford's rank need not engage with one of Gwilim's, Gwiffert and Caw would have rushed to his defense but Tud held them back.

The two youths stood a moment. their

eyes upon one another, then they closed in a battle to death.

The villainy of Gwilim betrayed itself in foul strokes and passes which, as the combat grew, indicated a weakening on which Guilford was not long in playing.

Then, quick as an adder, he dropped his sword, drew his dagger and grappled with his adversary. Thrusting it at his throat he cut the laces that held the meshes of Gwilim's haubert, leaving his neck and shoulders exposed.

As quickly again he stepped back to regain his sword; in his haste he would have fallen with Gwilim's great weight crushing upon him, but balancing himself immediately he sprang to one side and was again on guard.

From the start Guilford had had in his mind this *coup de grâce* and, with a lightning stroke, he broke down the robber's guard and his sword, whistling back in a counter stroke, embedded itself in the foul traitor's neck, his knees gave way and he fell in a heap on the stone steps, dead.

Then without came the clear call of the mysterious stranger, "*En avant*," ringing through the castle. With one blow of his mace he shattered the grating in the door before him and led them up the steps into the main tower, into which Guy had retreated.

The stone stairway was spiral and dark as pitch, the steps were damp and slippery, covered with a ruck of twigs that had fallen from the narrow windows where the ravens had built their nests. The ascent was slow and labored. Half way up they stumbled over the cowering figure of the Abbot of Monmouth, blanched with fear as he held his beads before his bloodshot eyes. Dragging him up they forced the oak door that led to a balcony battlemented and carved in fantastic forms. All around were strewn pieces of armor and shields dropped by the fleeing knaves, and the attackers were saddened by the sight of many of their companions and friends that had died in the first sorry defense.

With reverence they laid them in a row in a low niche that was protected from the snow. Then Guilford, turning his attention to Guy, who was now crowding with his men the turret of the smaller and loftiest tower, commanded him to surrender.

A torrent of arrows was the only reply.

"Come down, or by the torment I will drag you hence and fit your punishment to the lying of your cloven tongue—or yet, better than sully an honest sword in any of your foul carcasses, you may stay where you are and feed the hungry vultures, your friends and brothers."

The vain efforts of the archers soon ceased, for they now realized with terror their plight, locked as they were in a tower without food or shelter from the cold, with the grim monster of hunger threatening them above and a shining array of trusty broadswords menacing them below.

Turning to address his respects to the unknown stranger Guilford saw him nowhere. He sent messengers to find him but they all returned from an unavailing search.

Removing his heavier armor, for with chain shirt only he could move more quickly, he himself began to look, hastening down the stairs.

He had scarcely disappeared when a shriek came from above through the darkness and an object fell, striking the battlement and glancing out into the abyss below, and the archers in the tower began to call for mercy. But the soldiers on the balcony below gave them no heed.

Meanwhile, not high or low could the stranger be found, and Guilford was perplexed.

Every corridor and niche, secret passage hall and gallery was searched for him whose leadership had brought them victory, but no trace was found.

So he sent for his men to clear the courtyard below and, coming himself to the stone steps, he saw there, beside the prone remains of Gwilim, the body of his father, Guy, motionless in the snow. He had been hurled by his own men from the tower above.

And as they stood in the flickering light, silent but for the clanking armor of the men coming down the stairway, a trumpet blare sounded, a troup of mounted soldiers poured through the portal from outside, and, with a cry, they distinguished the standard of the Bishop of Hereford, with old Galwin at their head.

His red beard bristling as he roared challenges to Guy Howlett to meet him, he was led to where the traitor lay.

And after he had heard the events of the night still he roared, in amazement mixed a little with a bluff soldier's spleen at not having been a part of it all; then, as he turned away, he burst forth in a carol that must have been running in his head:

Nowell! Nowell! in this halle
Make merry, I pray you alle!
On that chylde may wee calle.
Night of sadness,
Morn of gladness
Ever, Ever Evermore,
After many troubles sore
Sing out with blisse
His name is this,
Emanuel!
As was foretolde
In days of olde,
By Gab-ri-el!

He seemed to take great satisfaction in the last line, from the lingering way he dwelt on it, and as Guilford prepared to depart he could still hear him singing.

Now, since his work was finished, Guilford left old Galwin in command and began a dreary journey back to the shelter in the green wood where his mother waited.

And as he rode his thoughts were busy over the crowded events of the night, and especially he puzzled over the strange and valiant knight; the more he thought, the more his fancy played about the unknown.

Stealing up in the east were flecks of faint color that boldly grew and when he met his mother at the door it was daylight.

Never had a morning seemed so bright; though he had not slept he was not tired, but made preparations in all haste to return with the women to Avedon there to make their Christmas a festal day that would be remembered as long as they lived by all who should partake.

In the confusion he had not at first missed old Matholch; then he called his name again and again without receiving any reply, and his mother told him that shortly before Guilford returned she had seen Matholch stand in the road until a horseman came up when both disappeared.

Like a flash came back to Guilford the words of the old man of King Arthur, who once was king and a king to be, whose spell was strong from All Hallow E'en till Candlemas.

"Perhaps," he mused as he went about the Christmas preparations, "perhaps, last night our strange comrade was the spirit of the King."


The Vigil
Thru the long night of desire,
Steadfast, silent unafraid.
In knightly hope an ancient squire
Guarded where his armor laid.
Consecrating thus his sword,
Symbol of his chivalry ✠ ✠
Hoping this may have a word
Truly sent to you and me.



The foremost Arab paused in his haste from the door

The White Arab

By Denzil C. Lees

Illustrated by Clyde Forsyth

I WAS gazing out of the window of our sitting room in the Frank Hotel at a never failing object of interest —the streets of Mecca. A moon of bright silver had risen, which illumined that city of many mysteries. Then my friend Martin Blake called my attention to a card he had picked up upon entering the room. He sat down at a writing table in the center of the apartment as I turned and glanced over his shoulder at some words written in Arabic characters upon the card.

"What is the meaning of those words?" I asked, not being able to read Arabic.

"It is an Arabic proverb," Blake replied laconically.

"But what does it mean?" I reiterated impatiently.

"It means, literally, 'Blood calls for blood,'" returned my friend grimly. "And I take it to be a warning."

He paused a moment, as though in reflection, then went on:

"You don't suppose that the shooting of an Arab in Mecca, even by an American in these troubled times, is going to be forgotten, Parker, though it was done in self-defense?"

I did not answer him. His remarks set me thinking, and my thoughts were far from pleasant. Blake's moodiness the last few days, and now the strange words written on the card, together with his comment on them, caused me to apprehend some new danger. My mind turned at once to Ameil Amuraz and his gang, as it had always done of late when anything strange happened.

This Arab and fiend incarnate, whose influence extended throughout Arabia, was trying to promote a scheme for the world-wide supremacy of Islam by getting rid of men of note in all branches of life who were not of the Mohammedan faith and who came within reach of his present center of operations—Mecca. I had already been mixed up with Blake in three affairs which had almost ended in disaster. In the last exploit one of the Arab's followers had been shot by Blake. I had tried to persuade my friend to return to America after this last affair, but he was determined to stay and fight this enemy of western civilization and his fanatical designs, and I was certainly not going to leave him alone with his task; so I wondered what new devilment was afoot and who was to be the victim.

Martin Blake had been living in the Orient for the past ten years. He was the son of a New York banker and had given up his life to Oriental study, braving the hardships with adventurous delight. He could speak Arabic like an Arab, and what he did not know about those swarthy gentlemen was not worth knowing. It was on his last visit home that he had offered to take me as his secretary to see the Orient. My people protested at first, since I was only eighteen, but their faith in Blake, who was an old friend of the family, and my own eagerness to go, settled the question in the end.

I had turned again to the window when my attention was suddenly drawn to the peculiar movements of an Arab in the street below. His feline way of sneaking

among the shadows gave me a sense of suspicion.

"What is that fellow hanging about like that for at this time of night?" I said, calling Blake's attention to him. I had hardly spoken when the man disappeared from view. Blake returned to his seat with an amused expression on his face.

"Don't let little things worry you, my boy," he enjoined. "You'll go crazy if you want to know the reason every Arab in Mecca skulks around. It's the nature of the Children of the Prophet."

A knock at the door caused Blake to turn swiftly in that direction as he called: "Come in."

An Arab entered, closing the door carefully after him. He looked like the one I had just seen in the street below, but one Arab was so much like any other to me that it was hard to tell. He was very young looking, about my own age. I noted that Blake surveyed him with suspicion as his left hand cautiously opened the little drawer at the table while his right grasped a revolver which he deftly withdrew, but kept from the Arab's view.

"Well, what do you want?" demanded Blake sternly.

The Arab replied in English but in a hoarse whisper. I was surprised at his excellent knowledge of the language.

"I have come here for two reasons," said he, addressing my friend; "to warn you and your friend, and to seek your aid."

He stopped, looked furtively at the door, then continued:

"I must begin by telling you who I am. The name by which I am known in Mecca is Ibreheim Yamel, but my real name is Charles Hunt. My father was English, my mother of noble Arab parentage. I came to Mecca with them from the desert, where I was born, fourteen years ago. To make the story short, let me say in a few words that my parents went one day into the desert and never came back. I was told later that they were killed by hostile Bedouin Arabs."

His voice shook with emotion. Then, after another furtive glance over his shoulder at the door, he continued:

"I was only three years old at that time. An Arab woman brought me up until I found employment as an interpreter with the American Consul, who has now been gone a month on his vacation, and will not be back for another two. He has tried to locate any relatives of my father in England but without avail. My mother's relations will not receive me for they disowned her when she married a foreigner. My hair is black from my mother's side. The climate has given me the swarthy hue, a touch of it I had from the first, and so I pass easily enough for an Arab."

"I have heard of you before," nodded Blake encouragingly. "I believe you are called in Mecca—El Shahbah Arab—The White Arab!"

At my friend's last remark the boy started violently, but at once grew calm again.

I had listened with growing interest to the young fellow's strange story. But Blake's remark came as a surprise. Yet, realizing my friend's extraordinary knowledge of Mecca and Arabia in general, it was not astonishing that he had heard of Hunt's case. Though Blake's remark had caused the boy to start, it also appeared to lift a burden from his mind, as he came further into the room and talked with more confidence.

"The fact that you have shot an Arab, Mr. Blake," continued our visitor, "has aroused a number of them to a frenzy. Ameil Amuraz and his men have taken a vow to destroy one of you in revenge for their dead comrade. They will stop at nothing. The authorities are powerless for they work secretly. You are both looked upon as interfering infidels.

"I also have had a warning," he went on again, "that is how I take it. Look! I found this tied to the gate where I lodge."

He thrust his hand inside his burnoose, and, withdrawing it hurriedly, handed over a colored cloth to Blake, who opened it. It was a small English flag—the Union Jack! My friend started visibly. A sensation of horror passed through me as I recollected Clyde's condition—the English engineer we had rescued last—when we found him with the English flag bound about his loins, and Blake's remark at the time, that it was the trade mark of Ameil Amuraz's work!

"Why the sight of England's flag should strike terror to my heart," continued our visitor, "I cannot tell, except that I have heard it whispered that whenever a foreign flag is seen in Mecca of late some one of that nationality is marked for death. So I feel it is the warning of coming trouble, but I thought my nationality had been long ago forgotten."

Martin Blake rose to his feet. I could tell by his face that he had come to some swift decision.

"Have you taken on the Mohammedan faith?" he said shortly, addressing Hunt.

"No, not that," the other replied in an injured tone.

"Well, you will need this," continued Blake in his calm, matter-of-fact way, handing the revolver he still retained to Hunt. "You will have no friends any longer among Arabs, I judge. Your removal may be necessary to Ameil Amuraz's schemes. You are still called The White Arab although you may not have known it until a moment ago, and the derivation of that title is probably still known in Mecca. Ameil Amuraz also knows that you have a valuable knowledge of Arab life and affairs." The other nodded as he put the revolver inside his burnoose.

"By the way, look at this," continued my friend, picking up the little card which had aroused our curiosity earlier in the evening, and passing it over to our visitor, explaining at the same time where he had found it.

Hunt started as he read what was on the card.

"God in heaven! I was only just in time to warn you," he burst out, looking at Blake with an expression of alarm on his face.

"Oh, I knew a week ago that trouble was coming my way," declared Blake in a calm, even voice as he walked over to the window and looked out, "but I decided to stay and face it—that's the American way, Hunt."

There followed a short pause, when Blake turned with a question to our visitor:

"Did you see if you were followed here?"

"No, I think not," Hunt replied, "though there were several Arabs slinking about the streets, but that is not unusual."

"Well, the best thing you can do," continued Blake, "is to leave Mecca at once. I will get camels." Then, turning to me, he added:

"Better get your things together, Parker, we shall store our stuff for we are coming back. Disguise yourself as a Bedouin Arab and go with Hunt to his lodging place. I will follow. I suppose we had better get you to Jiddah on the Red Sea?" he finished, turning once again to Hunt.

Blake left the sitting room with me and turned in the direction of the stairs, explaining that he would pay our bill and leave directions for the care of our things. Though we shared the same sitting room we had separate sleeping apartments. I entered my bedroom with a great feeling of relief that my friend had decided to leave Mecca if only for a short time.

After changing my clothes for the disguise which I had adopted before, I joined my guide whom I found waiting at the sitting room door. His face was muffled with his head-dress. It was about midnight and the building was in semi-darkness. The hotel lobby was half filled with the dreamy forms of Arabs of the more wealthy class smoking narghelis and conversing in low tones. Several of them eyed us as we passed. I felt subconsciously that one or two had penetrated my disguise.

We went out into the hushed, moonlit night and hurried along the streets. One thing perplexed me, the silence of my companion. He had not uttered a single word since we left the hotel, and, although I put a question to him twice, he did not answer. At the time I supposed he was afraid we might be overheard. I was puzzling over this when a bent old Arab came up to us asking alms. Although I gave him a coin he still clung to us. When we came to a house before which my guide paused, the beggar got between me and the gateway. He appeared to be trying to keep me from entering the place, when his form straightened suddenly and Blake's voice whispered in English:

"Come away, run for your life!"

With a subdued cry I stepped to one side, but too late. A dull, crushing blow descended on the top of my head, and I became oblivious of all things.

How long I remained unconscious, I was unable to tell. The first sensation that came was a fearful throbbing in my head, followed by a terrible thirst. I raised my hands to my head, they came in contact with something wet and warm. Blood was flowing from the wound I had received. I opened my eyes. It was dark. Groping in the blackness, my hands touched a body that lay beside me.

"Blake!" I moaned, and shook the form.

"Blake! for heaven's sake speak!"

Then the thought came—was it Blake? Was he dead? Was I to be left alone to meet some unknown fate? A horrible fear clutched at my heart.

The form began to stir.

"Thank God!" I murmured. I felt a hand touch me.

"That you, Parker?" came Blake's voice weakly.

"Yes," I replied quickly. "How is it with you?"

"Pretty fair, except for my head, which throbs infernally."

"You got one on the head, too?"

"Yes, just as I was about to grab the man who hit you, Parker, something descended from behind; down I went upon my knees, that is all I remember. I had followed you and your companion all the way from the hotel disguised as the old Arab beggar. I became suspicious that something was wrong when I saw the direction in which the fellow was taking you, and three more Arabs suddenly appeared and began to follow. It was then that I came up begging. I saw your companion grew suspicious as I still clung to you. I wanted to prevent you from entering the house, for I perceived it was Ameil Amuraz's headquarters. Then things happened which resulted in our being here."

"So Hunt betrayed us?" I broke in.

"No, I don't think so," returned Blake decidedly.

There followed a brief silence.

"Did you find your guide in the sitting room?"

"No, he was at the door, and he said in English, 'All ready?' as I came up to him. At my reply he started for the stairs and we left the hotel; but he did not speak once all the way, and that puzzled me."

"I thought so," interjected Blake. "Hunt's place was taken in some way by that Arab. I cannot believe that he would give us away. He looked to me a straight,

clean kid, despite his Arab garb. Some one probably followed him to the hotel, or perhaps was in the hotel all the time and overheard our conversation. Ameil Amuraz has his accomplices everywhere, and they understand and speak other languages besides Arabic."

"What has happened to Hunt then?" I exclaimed with a sense of doubt still in my mind.

"God alone knows!" replied Blake sadly.

I was bewildered. My head still throbbed madly but the bleeding had stopped. A faint perfume hung in the air about me mingled with the scent of tobacco smoke. I now discovered that I was sitting on a rug, so I supposed that we were in some room of a house.

"You have your revolver?" whispered Blake. "The new automatic I put inside my burnoose before leaving the hotel is gone!"

"So is mine!" I returned, after feeling for it.

"Then we are at their mercy," sighed Blake.

"Do you suppose they will return?" I asked, "or leave us to die of hunger and thirst?"

"Yes, they'll come back and tell us our fate, that is their fiendish way," declared my friend grimly.

"Why not examine this room, there may be some way of escape."

"No, Parker, it's no use; they have made certain of that, we can do nothing but wait."

Silence fell once more between us. It was broken suddenly by Blake.

"Listen!" he hissed.

I heard a sound like a pad, pad of naked feet on stones coming nearer.

A door was thrown open to our left and two Arabs entered with the flood of daylight. The light showed us that we were in a good sized room, the walls hung with tapestries, empty of furniture except for one large divan near the door. One of the Arabs went over to the side of the room opposite us and pulled aside some heavy curtains. Little streaks of sunlight entered through the cracks of latticed windows. The other Arab shut the door. I changed my position ready for action. Blake rose to his feet, but tottered and sat down again. The Arab at the door never moved. The other went over to the divan and sat upon it. Both had most of their faces covered with their head-dresses. I looked at my friend for any intimation of a plan for escape, but his face showed defeat.

The Arab on the divan began to speak in English.

"You are Americans, but you have slain one of the Faithful," he said with slow deliberation in a melancholy voice. "One of you must die in recompense. You may choose which may be the sacrifice. Until the last call of the muezzin you have time to decide. The one who passes out of the door prepares death for the one who remains. The muezzin calls twice before the last call which is at midnight. If you have not chosen by then it will be too late."

Blake sat silent and motionless, his eyes fixed upon the speaker.

"You understand?" continued the Arab. "Only one may leave; as the one passes out, from the other side of the room the Black Death will enter!"

Blake, who had so far shown indifference, now started, his face filled with questioning horror, turned and gazed in the direction the man pointed.

"My God!" I breathed, glancing the same way and wondering what fearful thing the Black Death might be.

"It is behind the tapestry," the Arab went on in cold, hard tones. "You will see later."

He then went to the windows and re-

drew the curtains over them, at the same time delivering the following injunction:

"Do not touch the windows or death will overtake you suddenly."

When he had shut out the light the Arab at the door opened it, at the same time taking a large knife from his belt as though in case of emergency. They passed out, closing the door after them. Darkness followed.

"Blake," I whispered when the footsteps had died away, "what is the Black Death?"

"I don't know," he replied, "except that it was a plague of the Middle Ages. But whatever it is it must be some horrible death device that portends its name."

Then he went on in anxious tones:

"Parker, my boy, I want you to take the chance and get away; it was by my advice you came; you are young——"

"Nonsens-!" I broke in with emphasis. "I shall take no such chance; either you go and leave me, for you can be more useful in fighting these devils, or I stay to the end."

"Listen!" breathed Blake.

It was the call of the muezzin; faintly I could hear the words: "Allahu akbar—God is most great!" At last it ended—the first warning of approaching death. It held a melancholy note throughout.

I had a desire to go over to the window and draw the curtains; the continual darkness was oppressing. Then I remembered the Arab's warning. For some time neither of us spoke. My head still throbbed and my throat was parched for a drink. How long we were silent I could not tell; it seemed ages, but it was broken by the call again. It came in clear, penetrating notes this time—the call of the muezzin, and it ended in a wailing cry that reminded me of the cries of hired Arab mourners for the dead.

"Blake, Blake," I groaned, "this suspense is terrible. The next will be the last."

"Hist!" he breathed. I clutched at his arm. A horrible, creepy sensation passed down my spine. A weird, scratching noise came to me.

"Look! Look!" he whispered in my ear.

On the opposite side of the room from the door two eyes peered at us. Like the eyes of a cat in the darkness—they glistened. Then they disappeared, only to reappear again.

"What is it?" I cried in horror.

"I don't know," replied Blake. "It looks like an owl, it blinks that way."

In the interval when the eyes disappeared the uncanny scratching sound came. An indescribable dread took hold of me. The dread of the unknown. Then the scratching sound ceased. In its place there came the noise of a small body beating itself against some obstacle, and at every beat the eyes appeared.

"I've got it!" muttered Blake.

"Got what?" I jerked out.

"I know what that thing is."

"Well, what is it?" I urged with a mingled sense of relief and curiosity.

"It's the Arabian tarantula," he replied. "Don't you smell something peculiar?"

I had smelt something earthy, but I put it down to the condition of my head.

"It is called by the Arabs of southern Arabia the Black Death," went on my friend, "because it deposits a poison which turns the flesh black and its victims die in fearful agony. It is much larger than the tarantulas in our great West and far more deadly. It reaches its victim with a peculiar twisting jump."

An overwhelming sensation of dread and horror took possession of me as Blake finished his explanation. From the tone of his voice I knew that he was nervously tense.

Those staring eyes, they came again and the beating changed to a sort of flutter.

The little creature was trying to get out. I knew that we could not possibly avoid its attack in the darkness of the room. My heart leaped wildly in my breast, then seemed to suspend its pulsations and to grow icily cold.

Another sound broke in upon my horror-haunted brain. It came from beyond the curtains. For a moment I wondered if I had heard aright, or if the sound portended the coming of the Arabs and the sending forth of the Black Death. The sound was repeated, and in such a way as to draw me fascinated in the direction of the curtains, though in the darkness I could see nothing. Some one was opening the lattice-work of the window beyond. In all this suspense I had not uttered a word and Blake remained silent.

Suddenly the curtains at the window parted and an Arab fell into the room. A shaft of moonlight showed him slowly pick himself up and reach forward with a piece of paper clutched in his hand. The room was now illumined with the moonlight. The Arab looked exhausted. Blake arose and darting forward seized the man in his arms.

I had automatically gone forward.

"Has he burst a blood vessel?" I asked in a voice hushed with wonder. The man's face was half hidden with his head-dress, but I saw a dark stream issuing from his lips.

Hard upon my words came a cry from Blake.

"Merciful goodness!—he's dead!"

"How did he get in?" I continued in awed tones. "What did he come for?"

But Blake paid no heed to my questions. He seized the paper in the man's hand. He barely glanced at it before he gripped my arm.

"Come away—the eyes, Parker, see—they are brighter!"

I turned in horror at his remark, for in the excitement of the moment I had forgotten the menace which threatened us. He dragged me to the curtains. The last call of the muezzin sounded loudly through them as I seized one to steady myself. The thing with the eyes was now actual, existent, to be counted with. The fact hammered itself over and over into my brain. I heard a soft pad, pad, on the rug and the eyes appeared nearer. Outraged reason deprived me of coherent speech. I seemed glued to the spot where I stood, fascinated, mesmerized. Then, as the thing came on in little jerks, I uttered a hoarse cry and hurled myself against Blake.

The door burst open on the other side of the room and admitted two Arabs. That seemed to bring me to my senses. The vague understanding of the possibility of escape also brought me to a realization that Blake was already disappearing through the window and calling to me to follow. I jumped forward and leaned out of the window. I distinguished a rope suspended to the street below and Blake hurriedly lowering himself by it. The next moment I was over the sill. My eyes sought the semi-darkness of the room for one lingering moment. The foremost Arab paused in his haste from the door. Then his eyes filled with horror and his hands went up as though he was defending himself against some fearful foe. I saw a small black shadow pass through the stream of moonlight from the window. A black, hairy thing like a spider and twice the size of a man's hand lighted on the Arab's chest. His face turned livid and he reeled backward.

I seized the rope and began to let it slip through my hands. As I descended a cry from Blake caused me to look up; an evil face peered down at me. The brilliant moonlight gleamed upon bared teeth not a dozen feet above, and in that quick, agonized glance I saw also the flash of a knife. Then I felt myself dropping into space—

the rope had been severed. Blake helped me to my feet. I felt a sharp pain in my shoulder where I had struck the hard stones at the fall.

"We must run for it, Parker," he hissed.

Mechanically I turned to follow. On we ran, silently, through the moonlit streets. There was no one about, but a warning cry from Blake brought an irresistible fascination to look back. I threw a quick glance over my shoulder. Never shall I forget what I saw. Two Arabs with knives that glittered in the moonlight pursued us close behind.

"As fast as you can go," panted Blake.

Not once again did I look back. The pain in my shoulder was excruciating. Once I stumbled and uttered a cry.

"Keep up!" came from Blake weakly. Then a shot rang out, followed by a wild cry. A dark form appeared in our path and a red mist flitted before my eyes. I dropped sprawling after my friend and my senses left me.

When I came to myself, Blake's voice floated to me:

"It's all right, Parker, we are safe!"

I opened my eyes. I was lying on a divan and Blake was standing nearby. The wound in my shoulder had ceased to throb, but I realized that the shoulder was tightly bandaged.

"How do you feel?" continued Blake.

"Somewhat better," I replied in a bewildered way, "but where are we?"

"In the French Consulate," returned Blake. "The French Consul had been warned of our detention a few moments before we appeared in the street, and went at once with four of his servants to our rescue. One of them shot the nearest pursuing Arab, the other turned and fled."

"By the way, what was on the paper the poor fellow clutched in his hand?" I broke in.

"Simply the words—'Rope at the window, run to the French Consulate!'" replied Blake, turning away with an expression of relief.

"But what about Hunt?" I questioned, still a little perplexed. "Where is he?"

Martin Blake turned sharply and stared at me in surprise, then said:

"Why, Parker, that was Charles Hunt who came to our rescue. After we left him in the sitting room at the hotel, four Arabs entered, tied him to a chair and cut out his tongue—the Arab penalty for warning us. He overheard them discussing plans for us and managed to get away. But he was in a bad way from loss of blood and something must have finished him as he broke open the window. I have learnt part of this from the French Consul."

Blake paused a moment, then added: "The Consul also told me that Ameil Amuraz offered Hunt his life and a large reward to betray us. Poor Hunt, he certainly was a white kid," sighed Blake, "even though he had Arab blood in his veins!"

On Being Lost

By George Gladden

Deputy Commissioner Manhattan Council and Chief Guide. Natural History Troop

SOONER or later everybody who travels much in the woods—*real* woods—is likely to get lost. The tenderfoot (scout or otherwise) does; the experienced woodsman does—even the Indian sometimes does. But the Indian often won't admit it, at least to a white man; from which trait probably originated the classic story about the redskin, who, when he was accused of being lost, replied indignantly:

"Injun no lost; wigwam lost; Injun *here!*"

Astray or Lost

There is a difference between being *lost* and being *astray*. For example, you may suddenly realize that you are traveling northwest instead of north, which you had supposed and desired to be your course; and that discovery may cause not a little confusion in your mind. As long as that confusion lasts, you are *astray;* actually you are no longer really astray as soon as you realize your error, and begin to travel north.

Again, if you confidently expect to see a certain landmark—say a big ledge on a mountainside—from a trail or road from which you believe it to be visible, and it isn't there, you are certainly astray, and perhaps *lost,* as far as that ledge is concerned. Wherefore it behooves you to find out promptly just *why* you have missed seeing the ledge. Otherwise you are likely to get still farther off your course. For, depend upon it, *the ledge hasn't moved*—that is, the wigwam isn't lost. The mistake that many an inexperienced person makes lies in blundering along, and trusting to luck, with the result that presently he is lost "for fair."

Benefits of Scout Training

The training which every scout should nave, especially that to be acquired by proficiency in the merit badge requirements for Camping, Cooking, Forestry, First Aid, Stalking, and of course Pathfinding, should come to his assistance when he is lost or astray, and it is assumed that he has at his command at least part of the information and practical efficiency derived from this training. Therefore, it seems unnecessary here to enter upon any elaborate description of how to extemporize a shelter for a night in the woods, or what kind of a fire to build, or how to make a browse bed, or, in fact, how to do any of the things needful to make oneself as comfortable as the circumstances will permit. Scouts will do well to consult carefully the merit badge pamphlets on the subjects just enumerated, while they are considering this vitally important matter, which may involve almost every phase of woodcraft.

Natural Compass Marks—Moss

Especial attention may, however, be directed to a few principles and tricks of the pathfinder's trade which every scout should understand, and should be able to

apply accurately and promptly in the emergency of being lost. But he should be *sure* of these principles before he accepts and acts upon them. For example, probably everybody has heard that moss grows on the north side of a tree, a most convenient thing to know if it happened to be *true,* which, however, *isn't always the case.* (Remember, incidentally, that the thin, gray parasitic *lichens* which grow on both rocks and trees are not *moss.*) True moss is to be found on that side of the tree which *retains longest the most moisture,* and that may not necessarily be the north side. For example, moss will grow most readily on the *upper* side of a *leaning* tree, because naturally that side retains moisture longer than the lower side. Wherefore, a believer in the moss-on-the-north-side-of-the-tree theory would be thrown completely off his course if he should be guided by the moss on a tree leaning to the north, for then, of course, beyond a doubt the growth would be on the *south* side of the tree.

Again, moisture remains longer on *rough* bark than on *smooth,* and within the forks of trees and about their swollen bases, without any regard for the points of the compass. "Does it follow, then," asks Horace Kephart, "that exposure has nothing to do with the growth of moss? Not at all. It merely follows that a competent woodcraftsman, seeking a direction from moss on trees, would *ignore* leaning trees, uncommonly rough bark, bossy knots, forks of limbs and the bases of trees, just as he would give no heed to the growth on prostrate logs. He would give special heed to the evidence of trees that were isolated enough to get direct sunlight throughout a good portion of the day, while those that were in the shade of cliffs or steep mountains, so that they could only catch the sunbeams in the morning or afternoon, would be ruled out of court."

The tendency of the person who has entirely lost his sense of direction to "circle" is well known and has been repeatedly proved by experiment.

The most plausible reason for this circling is that it is due to the unequal strength of the two sides of the body. That is, if the right side be stronger than the left—which usually is the case—longer strides will normally be taken with the right leg than with the left, and this will cause circling to the right. The circling seems always to occur when one becomes hopelessly lost and is likely to continue until the victim drops from sheer exhaustion. One instance on record is that of a lost man who, after walking steadily for six days and nights, finally stumbled into a camp only about six miles from his starting point. Five miles of travel in a straight line in any direction from that point would have brought him out of the woods and incidentally would have saved him from the loss of his feet, both of which were so badly frozen that their amputation was necessary.

Traveling by landmarks, or by compass, are the only sure ways to avoid circling. Landmarks should be observed carefully and frequently, for as one proceeds they are likely to change their appearance, sometimes very considerably. The importance of the compass to the lost man is, of course, very great, provided he uses it *intelligently.* And part of that intelligence will be shown by *absolute confidence* in the instrument for the present purposes. "Magnetic variation," that is, the difference between the magnetic north, as shown by the compass, and true north may be disregarded for ordinary pathfinding in the woods, as the deflection is not sufficient to throw the traveler seriously off his desired course. But beware of local attraction, such as would be established if the compass were held near any iron or steel ob-

ject, like an ax or a knife or a belt buckle. To make sure that the needle is not being affected in this way put the compass on the ground and then hold it in your hand and note whether the needle keeps its position in both places. Very rarely a compass will be affected by a mass of iron ore beneath the surface of the ground.

It is a good plan to carry constantly a map of the country which one intends to traverse or of the region about his camp. This map should be on a scale sufficient to show the main topographic features, in no more detail, however, than is needed to indicate in a general way their dimensions and most conspicuous physical characteristics. Such a map may ordinarily be found in the possession of the government official usually the custodian of such documents and who probably will be willing to let you make a tracing of it. This tracing should be made on tracing linen with India ink or an indelible pencil. Paper of any kind is almost certain to become creased with repeated folding, so that presently the map will be in several sections, one or more of which is likely to be lost.

Perhaps no more need be said in exposition of the necessity of observing the precept expressed by that eloquent if somewhat indelicate slang injunction, "Keep your shirt on." It is said that the poor wretch who gets lost in the Australian desert and becomes stark mad from thirst usually takes his boots off and throws them away. After that he always runs until he falls dead. At least he is always dead when he is found. "Keep your shirt on" is, of course, not proposed in any such sense, though it is a fact, we believe, that lost men have been known to tear off almost all of their clothing.

But if one keeps cool and acts rationally there is little danger that he will lose either his mental or his physical shirt. Of the two losses, the former is by far the more serious, for once bereft of his reason the case is hopeless. There is no use denying that this is a real danger, but, on the other hand, it is one which easily may be and usually is averted.

Let's Go for a Hike

Let's go, Scouts! Let's pack our haversacks with something to eat, and make up our blanket roll, and hit the trail for one fine old over-night hike. I've got to get away from these close rooms and brick walls and smoky chimneys, and I must have you with me, for I need jolly company when I hike.

We'll strike back into the hills, fellows, through the woods. There are some faint old trails there that I'm sure the Indians long ago trod with moccasined feet. Anyhow I'm sure they stalked their game, and lighted their camp-fires up there.

And speaking of camp-fires. I'm actually homesick for a smell of camp-fire smoke—and there's that other smell that goes with it—the sweetest smell that a hungry hiker and camper ever smelled—frying bacon! We'll eat our bacon, and then, if we can find hemlock or spruce or balsam boughs, we'll break some for a seat. If there are no boughs handy, we'll just spread our ponchos, and build up our fire, and sit around it, and while we enjoy its pleasant glow and the sweet odors of the balsam and burning wood and moist woods, we'll have some jolly songs and stories.

Woodsy Cookery

By Ladd Plumley

ONE of the funniest things I've ever seen in the woods was a stone cooking range that three tenderfoot campers constructed. As a smoking, roaring, face and hand blistering illustration of how never to do it that camp range took the raisin cake. It was about six feet long and all of four feet high and held enough fire to melt a ton of iron. I smelt it all right, a quarter-mile down stream from the campers.

When I came out into the glade where the tent and stone range stood the campers had just finished preparing their dinner. All three looked like fire-tortured prisoners who had been rescued from Indians at the very last moment. A coffee pot, with the spout and handle unsoldered, black as a silk hat, stood on a stone. A blackened tin pail of boiled potatoes and a frying pan, containing scraps of burnt bacon, had also been salvaged from the stone range. The tenderfeet were engaged in putting more wood into the furnace. They explained that they wanted some hot water to wash up the cooking things—the things needed washing all right.

They invited me to dinner, and I sat on a log and ate burnt bacon, soggy murphies, raw in the middle, and peeled before boiling. The coffee resembled liquid mud, and had been boiled so long and furiously that it had a taste like unto wormwood diluted with gall.

"Fine camp range, don't you think?" asked one of the campers, pointing pridefully toward where a cord of smoke-yielding wood was blazing to heat about a gallon of water. "Took us three days to finish it!"

An Eskimo will stew a mess of seal meat and boil tea with a seal oil lamp that gives a flame a little larger than a candle flame, and potatoes for three persons can be boiled over a small alcohol lamp. Wood is plenty in forests, but that is no reason why the pains of martyrs at the stake should be suffered by the woodsy cook. And for cooking purposes, a little fire at the right place is better than a youthful forest fire.

A cooking fire is like steam and is most useful when confined. There are two ways for imprisoning a cooking fire, with stones and with green logs. The latter method is by far the best, and the most perfect camp cooking device known is that used in early days by explorers, trappers and Indians, and, later, by early Adirondack guides.

Two green logs, preferably of beech, eight to ten inches in diameter and six feet long, are placed side by side, a few inches apart, and secured in position on the ground with stakes or stones. The tops should be flattened with hatchet or ax. Coffee pot, frying pan, and other utensils, stand across the tops of the logs, and little cooking fires of dry wood burn directly under each utensil. Thus you can have just the correct heat for the food you cook, you don't have to hold the handles of the utensils, you sit on a log near and swap yarns with the other campers, while breakfast or dinner is sizzling or boiling.

Woodsy Cookery

The log range can be constructed in a half-hour at most. It uses a minimum of fuel, it is as convenient as a gas range in a city apartment, with dry fuel it gives out almost no smoke, it blisters no faces, it unsolders no handles of tinware, it cares not in what direction the wind is blowing, and, finally, as the narrow top can be protected with slabs of bark, it will do its cooking even in a heavy rain-storm. Take off your hat to it! Probably George Washington used it when as a young chap he made that famous hike to the Forks of the Ohio, and very likely old Dan Boone cooked his deer meat over it.

A little improvement on the original log range is to elevate one leg an inch or so on stones. Thus we have a draft, and by this means the petty fires between the logs burn better.

With the log range you can cook almost anything, and frying-pan cookery is made particularly convenient.

Excellent camp bread can be made of prepared flour. Mix to thick stickiness, use plenty of bacon grease in the pan, and have the grease hot when you dump in the dough. When nicely browned on one side, put in a little more grease, turn over and cook on the other side. Potatoes peeled, cut into quarter-inch slices, and fried in very hot fat are fine. When frying fish, use plenty of fat and have it very hot at first; the heat should be reduced a little afterward. Boil coffee only three minutes by the watch, and coffee made in a small tin pail, with a tight-fitting cover, is better than coffee made in an ordinary coffee pot. Use egg-shells to settle the coffee, or stand the pail or coffee pot one side away from the heat until the grounds settle. Use lots of salt in the water when boiling potatoes, a strong brine gives the best results, and always boil the potatoes in their skins, and please, please don't dig out the eyes or in any way mutilate the murphies. It makes 'em wet and soggy. When a fork can easily be thrust through 'em, pour off the water and dry thoroughly over the log range. The potatoes will be snow white, dry and mealy, such as you could not get in the most famous city restaurant.

Never waste a single drop of grease in the woods, and keep the grease used for frying fish separate from that used for frying other things. Condensed milk cans make fine grease holders.

Nice toast can be made in a frying-pan over the log range. Use just enough grease to keep the bread from sticking, and be sure not to burn it. Fried mush is mighty good. Stir corn meal into boiling water to a thick mush. Place utensil in another pail, thus you have a double boiler, and boil mush for a half-hour. Put the mush into the frying-pan over night to cool. Cut into thin slabs and fry to a golden brown, in plenty of hot bacon grease. Fried oatmeal is good, cooked in the same way. Bread dipped in condensed milk and fried makes a nice hot breakfast dish.

Prunes or dried apples or peaches, soaked over night, and boiled with sugar until tender should be used constantly in the woods. Prunes are tasty and are also good medicine. Flapjacks made in the frying-pan over the log range must not be forgotten, but mix into the batter, which can be made with prepared flour, two or three spoonfuls of syrup. Thus your flapjacks will be a glorious brown.

Trout Fishing for Boys

By Ernest Warren Brockway

THE brook trout—the fish with the beautiful spots of red and gold along his sides and a delicate blending of rich hues along the lower portion of his body—he's the fellow that causes the heart of every boy to beat faster when he knows one is snapping at his hook. And there's hardly a boy who knows about trout but who hopes that some day he will be able to take home a big string of the beauties just as the older fishermen do. But he often wonders why now he cannot catch them just as well as his Uncle Henry or his big brother Tom; they seem to get them every time they go after them. He can catch perch and pumpkin-seeds and dace; but trout—he can't seem to get 'em, that's all.

And there's something more he wonders about, too. There's one boy in town no older than he who can catch trout almost as well as his Uncle Henry or his big brother Tom. But this boy doesn't seem to want him along when he goes to the brooks. He asked him to go with him once, but never again. And, of course, he had enough pride not to ask to go again.

I shall first tell why this boy who wanted to catch trout, but couldn't, failed. He could catch dace and pumpkin-seeds and perch, a lot of them—very true. But each of these classes of fish is wholly different from trout. Among the former, in order to catch them in any great numbers one doesn't first have to study their natures very deeply, for they are simple and open and they may be found in almost any pond or lake or river, and in some still-running brooks, especially dace.

But with trout this is not so. A trout that has grown to a fair size is wonderfully sharp-witted and very, very sly. And he is easily frightened; it might almost be truthfully said that "he is afraid of his own shadow." Surely, as every experienced fisherman knows so well, he is afraid of any shadow made in any way by a fisherman. Even the slightest shadow cast by a section of a fisherman's rod will nearly always cause him to dart to a hiding-place under a bank or under a tree root or some other refuge of safety where the lure of the angler cannot follow. A noise in the water near him will also give him a big scare or else make him acutely suspicious.

Yet when there has been no noise or no shadow to scare him or to arouse his suspicions, he is likely to be a victim thereof just the same; or, he is suspicious, but not at all times frightened. If, for illustration, he is hungry and a big fat worm is washed along by the current right in front of his mouth he doesn't think that a sufficient reason for him to jump or dart quickly for the choice morsel and catch it and swallow it as quickly as a chicken would a bug. Sometimes big worms are not such choice eating as they appear to be at first sight; there's something about them oftentimes that hurts painfully; he has had one experience, and possibly more than one, which has taught him the worth of being cautious when possible danger may be lurking about. In this, at times, he would seem to possess an almost human intelligence.

Therefore, any intelligent boy may readily understand that he as a fisherman must be cautious lest he project shadows over the brook, make any unnecessary disturbances in the water, and he must learn how best to tempt the appetite of Mr. Trout.

By no means, though, is this all there is to know if one would catch trout successfully. One of the most essential things to learn besides caution is a knowledge of brooks; and types of brooks are so varied that this requires much thought and observation. There are big tumbling brooks and big smooth-flowing brooks; there are small hillside brooks that are all commotion as they course their way down over big stones and huge bowlders; and there are little deep quiet-flowing meadow streams. Trout are caught more plentifully in some of these early in the season and in others, later in the season, depending largely on weather conditions.

Experienced fishermen select their brooks for the periods they are to fish just as carefully as they select the weather when they would visit certain brooks. For instance, it is invariably true that for very early season fishing small brooks are best result bringers; or, if one is to fish a large brook early, he should give most of his time to its headwaters. Later, the trout drop down stream where exists a greater volume of water.

In all brooks, too, there are favorite places for trout to linger—places where they may be on the watch for worms and bugs and other kinds of food as they are brought down stream by the current—such as at the heads of pools into which flows fast water; at the lower side of boulders which project above the water; in shallow riffles which are not too boisterous. Of course, these conditions vary to a considerable degree in the rising and falling of the water occasioned by rain or lack of rain. But all of these things only experience can teach successfully. An experienced angler who truly loves the sport will oftentimes know that a trout may be taken from a certain formation of water. He senses it intuitively.

This is why older fishermen with years of experience will catch trout when the average boy cannot. It has taken the older fisherman a long time probably to learn the many essential lessons that must be learned in order to feel a confidence in oneself; in being able to make not an occasional fair catch, but to maintain a fair average whenever a stream is visited. In short, successful trout fishing is an art that does not come by luck; only careful observation and an intelligent study of the trout and the brooks can bring it. The answer, then, to the boy as to why he cannot score catches equal to older fishermen is that he has not learned his lesson.

And the answer as to why one boy in town makes good catches is just this: He was an exception to the average boy in that he knew at the start that successful trout fishing had to be learned; and he began studying it the first time he wet his hook; he has kept studying, too, every minute during his fishing. Though young in years he is old in observation and study. He doesn't ask the other boy to join him in his fishing trips because when he took him along once he was noisy and didn't try to keep from being seen by the trout. He should have been cautioned by the experienced boy, but he was not. As the latter has had to learn by himself all that he knows, he is, unfortunately, rather selfish in not wanting to teach other boys what he had to work out alone.

Perhaps I have given the impression that trout fishing is a sport very difficult to master and may tend to discourage some in trying to learn it. If so, I am regretful indeed, for it is not difficult for any boy who truly wants to learn it; he will get so much fun out of it that there will be no difficulty.

The Real Robinson Crusoe

By Francis Arnold

Illustrated by George Gillett Whitney

ROBINSON CRUSOE'S man Friday, the parrot and the goats were real characters. They lived in a cave and met with countless adventures as we have always pictured them. A new light has been thrown on the real Crusoe and his life on the desert island which lends added fascination to the great adventure. It was probably not an Englishman named Selkirk, but a Portuguese named Fernar Lopez who was the original of the immortal Crusoe. And the famous island was not Juan Fernandez off the South American coast, but the more familiar island of St. Helena off the coast of Africa.

The adventures of Lopez on his lonely island have much more in common with the story of Robinson Crusoe than those of Selkirk. The Portuguese exile lived alone on his island more than thirty years, while Selkirk was exiled for only about four. Lopez again shared his exile with a black slave, which may well have suggested Friday to Defoe. He carried ashore a rooster intended for food, which however he made a pet, and this seems to have been the original of the famous parrot. The Lopez household included also many goats.

The adventures of the Spanish exile on his remote island attracted far more attention throughout Europe than did those of Selkirk and must have been familiar to Defoe. The long exile was broken by a trip to Europe when Lopez was given a remarkable reception not only in Portugal but in Italy as well. He was received by the King of Portugal and even journeyed to Rome, where he was granted an audience with the Pope.

The travels of Robinson Crusoe on his return to Europe, as Defoe describes them, were evidently suggested by Lopez's own experience rather than by those of the English sailor, Selkirk. It will be recalled that Crusoe, after his travels returned to visit his island although Selkirk was content to remain in England. Lopez voluntarily returned to St. Helena which was then uninhabited, where he lived alone for more than twenty years. From all the internal evidence it seems that Defoe borrowed freely from the adventures of Lopez rather than those of Selkirk in writing his immortal romance.

The mention of St. Helena of course recalls Napoleon. It was chosen as his prison because of its remoteness. Lying more than a thousand miles off the coast of Africa, well out of the way of ships, it was doubtless one of the loneliest spots in the world. When the former Emperor of France landed there the island was partially inhabited and ships carrying provisions and even mails occasionally found their way here.

The real Robinson Crusoe had lived a very adventurous life even before his famous exile. Lopez was a Portuguese nobleman by birth and supposed to have been wealthy. The great field for adventure

at that period for his countrymen lay in the far East. Some years before Portugal had commenced the conquest of Malaya and fortunes were being quickly made, Lopez was a soldier of fortune who enlisted to fight against the natives. Few details of his life in the East have been preserved, but these are of a lively nature. It seems that Lopez sided with some native thief in one of the disputes and was disowned by his own countrymen.

In a battle which occurred later Lopez fought against the Portuguese and was captured by the forces under the Portuguese Viceroy, Alfonso Dalequeque, was judged a traitor and treated as such. The punishment of a soldier in the early part of the sixteenth century was severe, according to our modern standards. For one thing, one of his hands was cut off, the right one. His hair or part of it was pulled out by the roots and he was severely beaten. The old records of that day record that he received "other indignities," but no details have been preserved. Despite this torture the "poor Crusoe" recovered and probably enjoyed good health for the rest of his long life.

Some three years later the Portuguese Viceroy of Malaya died and Lopez found himself at liberty to return home. He had left a wife and child in Portugal and probably some property. The journey by sailing vessel in those days from India to Europe around the Cape of Good Hope was very long and slow. On the way Lopez had plenty of time to think over his situation, and long before Europe was sighted he had changed his mind about going home. It is probable that he feared to return for the law in those days was tricky. As things turned out these fears were imaginary, and Lopez would have been forgiven his past, but he, of course, did not know this.

On the voyage up the west coast of Africa the vessel bearing Lopez chanced to come within sight of the Island of St. Helena, which had been discovered only a few years before by Portuguese sailors and although a Portuguese possession it was still inhabited, and rarely visited. We can only guess how Lopez reasoned, but it is supposed that with the fear of possible punishment awaiting him at home, the soldier welcomed this remote island as a safe refuge. Lopez begged the captain of the ship to be put ashore alone on St. Helena and his extraordinary request was granted. The island lay so far off the track of vessels and was so remote, even from the African coast, that Lopez appeared to the sailors to be committing suicide.

They made his lot on the desert island as comfortable as they could. The supplies put ashore were liberal. Unfortunately, no record of them has been preserved. There was doubtless a considerable supply of food, probably of bread and flour. It is certain that tools for building and tilling the soil were included with guns and powder and shot.

The vessels in those days even on long voyages carried live stock and so it was possible to supply Lopez with the rooster which was later to become so famous. Lopez did not eat it, although the temptation must have been great, but kept the bird as a pet and spent many hours in taming it. The story of the rooster was told all over Europe. It was this rooster which is supposed to have suggested to Defoe Crusoe's famous parrot. The picture of the lonely exile making friends with the bird has always been a pleasant memory of all lovers of Crusoe.

The food supply included several goats from the flock carried aboard the ship. Lopez could count upon a liberal milk supply from the first and later on the herds doubtless outgrew the shelters and enclosures he had prepared for them, when

they ran wild over the island. Nearly two centuries later when Napoleon came to St. Helena he must have seen these herds, and even to-day the wild goats which roam the island are supposed to be the descendants of Lopez's flock.

And Lopez had a black slave to assist him in making a home on his island. Slaves were cheap in those days, and doubtless the ship he sailed in carried many. That Lopez was a nobleman by birth would naturally have suggested to the captain the necessity of such a servant. In the labors which followed the slave must have done much to make life bearable for the exile.



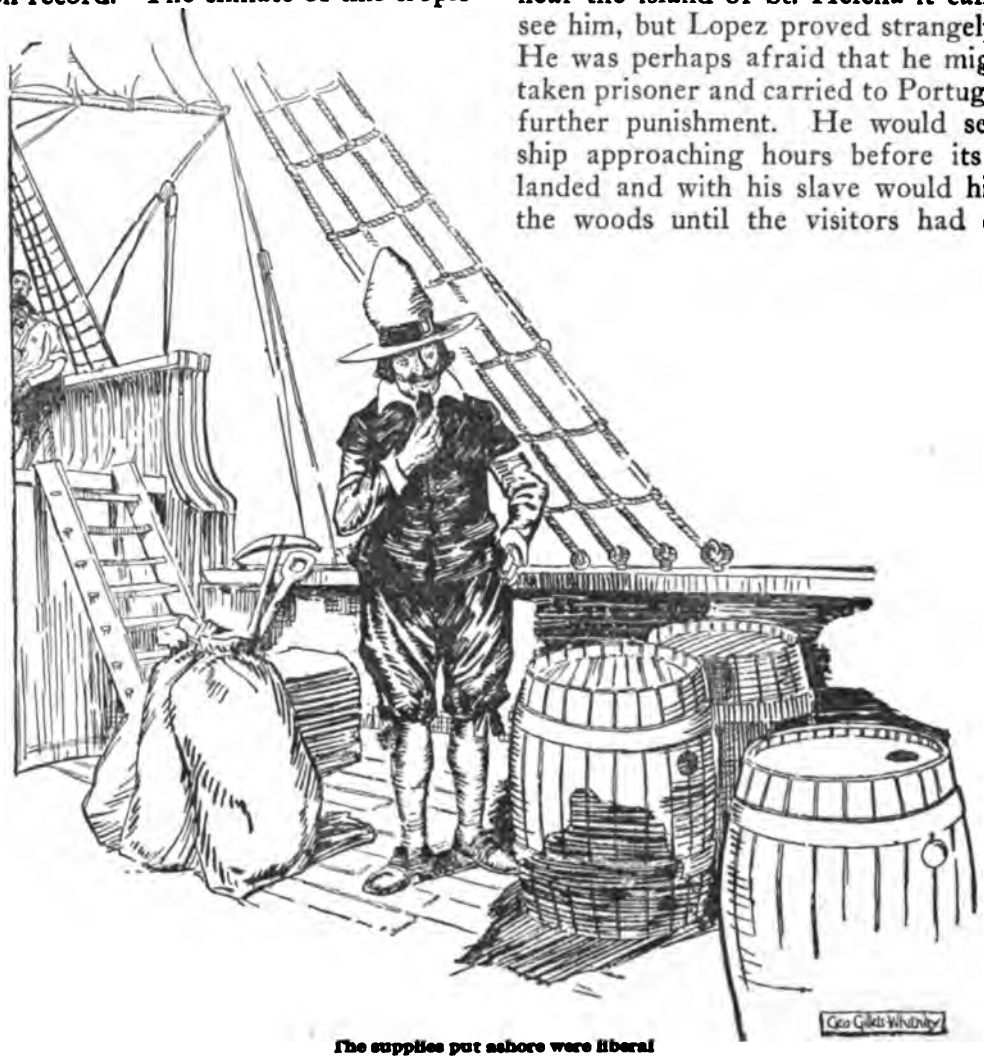
He carried ashore a rooster intended for food, which, however, he made a pet

Here would seem to be conclusive evidence that Defoe dramatized Lopez rather than Selkirk in his story. The English sailor had no slave. It will be recalled of course that Crusoe was visited by native blacks from the mainland. The discovery of the footprint on the sands is one of the most dramatic scenes in all literature. Later Crusoe discovers a number of groups of such natives, about their fires on the beach.

It has been disputed whether Selkirk lived on an island off the east or west coast of South America. In neither case would he have been visited by barbarous native blacks from the mainland. St. Helena, the home of Lopez, on the other hand, lies off the west coast of Africa, the home of the blacks. It lay too far away from the continent for the natives to visit it regularly in their canoes, but Defoe with its geography in mind, would be much more likely to bring blacks from Africa than from South America.

After nearly three centuries it can scarcely be expected that any trace of Lopez's home remains. When a ship vis-

ited him later it was found that he and his slave had dug a cave for themselves. All exiles wrecked on uninhabited islands dig caves for themselves, but in or out of fiction Lopez's cave was doubtless the first on record. The climate of this tropic island proved friendly and little protection was required. The exiles thrived on their island and Lopez, as we shall see, became so fond of this life that he would exchange it for no other.



The supplies put ashore were liberal

After leaving Lopez and his slave to their fate the ship sailed and brought the story of the exile to Portugal. It at once attracted wide attention, and soon spread over Europe. All this was long before the novel had made stories of exile familiar. It quickly became known among sailors in many ports, and whenever a vessel chanced near the island of St. Helena it called to see him, but Lopez proved strangely shy. He was perhaps afraid that he might be taken prisoner and carried to Portugal for further punishment. He would see the ship approaching hours before its crew landed and with his slave would hide in the woods until the visitors had disappeared. The visiting crew usually left a present of food at the mouth of the cave. Although he was thus completely out of touch with the world Lopez did not suffer for lack of civilized foods.

After about three years of this life a vessel arrived one day with an invitation from the King of Portugal to return home.

The story of the exile had been told and the King had become so interested in the Lopez case that he not only promised him protection but an opportunity to rise in life.

Lopez perhaps mistrusted the royal offer and saw in it a ruse to lure him back to be punished. He may have preferred to stay where he was for various reasons, but in any event he flatly refused to leave St. Helena. Whereupon his visitors pressed their invitation upon him so far as to make him prisoner and carry him aboard ship and to Portugal. But the exile's fears of punishment were ungrounded, the royal invitation was quite sincere.

On reaching Portugal he received an ovation, he was the lion of the day. Crowds followed him about the streets, and he was deluged with invitations. The King was especially gracious, and received him at court, where he was invited to tell his story. At every turn he found himself a popular hero.

But in the midst of this popularity, Lopez found himself a stranger in a strange land. He had become so accustomed to the quiet of his lonely island that the noise and confusion of his native land terrified him. The crowd in the streets, the contact with his fellow beings filled him with alarm. When the situation was explained to the King special arrangements were made to find a home for him in a remote monastery where he might gradually become accustomed to civilized life. Even in this retreat, however, Lopez was unhappy and longed for his island.

The brief stay in Europe proved to be anything but happy. Lopez was not only unhappy in the society of his fellow men but suffered from remorse for his life in the far East.

His curious story, meanwhile, had reached the ears of the Pope at Rome, who expressed a great curiosity to meet him. Lopez thereupon journeyed to Rome, a prodigious journey in those days.

He was granted an audience with the Pope, was received kindly and spent hours in relating his strange adventures. In the course of this long conversation Lopez confided to the Pope his remorse for his sins committed years before, and the Pope, it is said, granted him absolution. At the close of the interview the Pope asked if there was any one thing he greatly desired. Lopez promptly replied that he wished only to be allowed to return to St. Helena and continue to live there alone and undisturbed.

The Pope was so affected by the reply that he addressed a letter to the King of Portugal asking him to grant this extraordinary request. So in due time Lopez was transported to St. Helena and left there once more to his own devices. His story was still fresh in the minds of Europeans and he continued for the rest of his life to be a great object of curiosity. As before ships which found themselves in the vicinity of St. Helena would put in to visit him. In this way Lopez at long intervals learned what was happening in the outside world and Europe in turn was informed that the exile was still alive.

The world has always marveled at the life of Selkirk. Most men, it has been pointed out would have gone insane under such conditions. But the life of Lopez is far more remarkable. Selkirk was a plain sailor used to rough living. The Portuguese nobleman, on the other hand, was fresh from life at court, which was especially attractive during the sixteenth century. He had tastes and needs to be satisfied far beyond those of the rough English sailor. Yet he continued to live alone for more than twenty years. During this long period he had many invitations to return to Europe. Had he done so he could have counted on the friendship and interest of both the King of Portugal and the Pope.

The Real Robinson Crusoe

It is not strange that the picture of this nobleman living so simple a life in this remote speck of an island could have held the interest of Europe. Long after his lonely death in 1546 the story was still told. The world, which was then Europe, marveled that a man should find life in peace and contentment under such extraordinary conditions. It remained for the great English novelist, Defoe, nearly two centuries later, to make this exile seem real to us.

And because of the unusual nature of the tale and the realistic way in which it was chronicled it was quite natural that all Europe should become keenly interested regarding its truth. Indeed, so soon as the novel began to gain its broad popularity speculation was rife as to who could be the real hero. That Robinson Crusoe was not entirely the creature of Defoe's brain was very evident. The tale contained far too many realistic incidents, to be in every way a fanciful creation. There could be little doubt but that it was founded at least on the adventures of some real person.

Whether Defoe ever divulged the source of his information is not definitely known. Just who assumed that the rough old sailor, Alexander Selkirk, was its hero is also in doubt, but since Selkirk's adventures were very familiar to the English reading public, it was quite natural that they should conclude that his journal was the source of Defoe's information, or at least the author's inspiration.

But as time went on and the novel passed into the hands of generations more removed from the period of Selkirk, men and women began to dig into the past to make certain as to the real character of Crusoe. And with this research work under way a curiosity developed as to the location of the island upon which the adventurer lived. There was more latitude for speculation in this last question than in the former, for most people were willing to believe that Defoe's hero was Selkirk, but since Defoe had given only the most meager information as to the possible location of the island, a variety of opinions were held as to just which island could have been the one on which Crusoe was marooned.

There were some who insisted that Juan Fernandez, an island off the coast of Chili in South America, was the one on which Selkirk spent his years of solitude. This was assumed entirely because of the few figures concerning the island's location that were given in Defoe's book and not because of its geographical location, or its formation.

There were many who insisted that this was entirely an error. In the first place Defoe refers to the savage natives, who visited Crusoe's island, as black men and there were no really black natives in the vicinity of Juan Fernandez. Travelers who have visited the islands from time to time report that its geographical formation does not at all correspond with that given by Defoe.

There were others who insisted that the now popular and very prosperous island of Trinidad, off the northeast coast of South America, was Crusoe's island, and there seemed to be far more reason to believe this theory than the first, for geographically the formation of Trinidad, especially the coast line and the mountains, corresponds more accurately with Defoe's descriptions than any other, save possibly St. Helena. To be sure there were no black natives on the island or on the mainland in that vicinity. In the days of Selkirk the island was probably populated with Indians, who were very likely of the same type as the red men whom Columbus first encountered more than two hundred years previous, when he landed on one of the islands far to the north.

The island of Tabago, in the Caribbean

Sea, has also been suggested as the possible refuge of Selkirk, and rather satisfactory identifications have been furnished by many who have been interested in the subject. But here, too, there were no black men, the natives being of the same race as those inhabiting Trinidad.

This general mix-up as to the location of the island, of course, develops from the lack of skill of the original adventurer in taking his bearing, all of which confirms the fact that Selkirk was after all only an uneducated sailor, with little knowledge of mathematics and other subjects. Taking this into consideration, and at the same time making a careful analysis of Defoe's Crusoe it will be found that the hero of the book was really quite an intelligent person with a love for good reading and with a mental development that would give him the proper educational background for the preparation of an excellent account of his exile. Lopez had such a training and was moreover a gentleman by birth, all of which in a measure confirms the more recent theory that the Portuguese adventurer, and not Selkirk, was the real Crusoe.

There are few tales that have stood the test of time as has this tremendously interesting work of Defoe. Indeed there are few of the present generation who have not read the tale of the lonesome adventurer, and reveled in its thrilling situation and tense moments. The novel, too, has been the inspiration for many another tale of a similar nature. It has sounded the call of adventure to hundreds of men.

Perhaps the most interesting tale that has ever been inspired by this book relates the fascinating adventures of a man who insisted that he was a direct descendant of Crusoe. He deliberately planned to live again the adventures of Crusoe and worked out the details very elaborately, going so far as to attempt to wreck the ship on which he traveled as a passenger off the coast of an island he believed to be the one on which Crusoe lived. Wreck the ship he did and refusing to be rescued he waited until the crew and officers had left. He then constructed a raft and loaded it with everything that Crusoe had taken with him. He reached the island in safety and there proceeded to construct a stockade, and erect his dwelling. Although he was provided with clothing, and could have obtained more from the wreck he preferred to make his garments of goat skin. This amateur Crusoe, it seems, was put to it to find a servant, a real Man Friday. Fortune was with him though for it happened that a single survivor of the wreck had come ashore on the island instead of going on to the mainland in the ship's boats. The would-be Crusoe discovered him and at the point of his musket made him promise to enact the rôle of Friday. So insistent was the Crusoe as to details that he even forced the poor sailor to blacken his face and body with charcoal and go about in goat skin clothes. There was little for the sailor to do but to obey, because the would-be Crusoe always strutted about fully armed with musket and huge broad sword.

Of course, it was evident that the man was not in his right senses, and from day to day he seemed to grow more insane and finally he became very ill. It was then that the make-believe Man Friday proved his worth. He took care of the sick man, and finally after days of signal smokes he attracted the attention of a passing steamer. They were taken off the island and the sick man was given the attention he needed.



Think and Grin

Edited and Illustrated

By Frank J. Rigney

Said a Mouthful

NOTHING that is false does any one any good," thundered the orator. "I've got false teeth," said a voice in the back, "and they do me a mighty lot of good."

Wow!

Jack: What sort of a dog is that you've got—a pointer?

Joe: No—a disappointer!



Halt!

Wise First Class Scout (on sentry duty): Halt! who goes there?

Second Class Scout: A scout with doughnuts.

Wise First Class Scout: Pass scout, Halt! doughnuts.

Knotty Problem

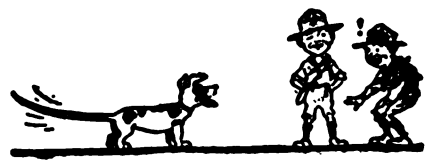
First Class Scout—This rope is too short on one end.

Brilliant Tenderfoot—Well, why not cut a piece off the other end and tie it on?

Some Tail

Tenderfoot: Gee, that dog has a long tail. It must be about *three* feet.

First Class Scout: Yes; that's his back *yard.*



Coming and Going

Professor M'Dome of St. Clair.
In five hours tracked a bear to his lair.
Mister Bear was at home
And Professor McDome
Spent five minutes returning from there.

Right

Jimmy: Dad, what does a volcano do with its lava?

Dad: Give it up.

Jimmy: So does the volcano.

If It Were a Newspaper He Could Have Digested the News

Blinks: The undercrust to that chicken pie you brought me was abominably tough.

Waiter: There wasn't any undercrust to that pie, sir, it was served on a paper plate.

Think and Grin

Mind Over Matter

A professor, while roaming through the fields, found himself confronted by a bull. Desiring to pass and also not to offend the beast, the professor said, "My friend, you are my superior in strength, but I am your superior in mind, and so being equally gifted let us arbitrate the matter."

"Oh, no," replied the bull, "let's toss up for it."

The professor lost.



Hot Stuff

Teacher: An abstract noun is something you can see but can't touch. Now, Willie, give me an example.

Willie: A red hot poker.

Oh! September

'Twas eventide. The small boy stood on the bridge slapping his hands vigorously. Beyond the brow of the hill a dull red glow suffused the sky.

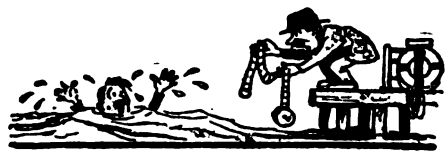
"Ah, little boy," remarked the stranger, who was a little near-sighted, "it does my heart good to see you appreciate yon cloud effect."

"Yes, sir," replied the lad, "I've been watching it for ten minutes."

Upon the boy's face there appeared a smile of perfect bliss.

"A real poet without a doubt, and do you watch the sunsets often, little boy?"

"Sunsets? Why, that ain't a sunset, gov'nor, that's the village schoolhouse burning down."



Life Saving

Drowning Man: Quick, throw me a life-belt.

Rescuer (a tailor): Yes, sir! What size around the waist?

Ha-ha-ha

At the foot of a steep hill stood a sign board on which the following notice was painted:

"*Danger.*—Bicyclists and autoists are hereby notified that this hill is dangerous and they are cautioned to come down slowly."

Appended to this were the equally funny lines.

"Any person not able to read the above, will have it read for them if they call on the blacksmith who lives around the corner."

A Scotchman saw this notice and explained to his friends that the point of the joke was that the blacksmith might not be at home.



Keep Cool

In explaining why a chisel must be kept wet with cold water when being sharpened on a grindstone, John, the brilliant physics student, said: "A chisel must be kept wet with water else it will become very hot and lose its temper."

Think and Grin



Might as Well

Man: What are you fishing for, boys?

Boy Scout: Whales!

Same Man: But there are no whales in that small pond.

Same Scout: No, nor nothing else, so I might just as well fish for whales.

Sight Tests

Tourist: Are there any good distant views around here?

Native: Fair. On clear nights we can see as far as the moon and on clear days we can see all the way to the sun.

Geographical Definitions

Mountain: A field with its back up.

Island: Piece of land out for a swim.



Artists

First Boy: My father is a fine artist. With a few strokes he can turn a laughing face into a sorrowful one.

Second Boy: So can mine, but he uses a stick.

Up in the Air

Father—Money has wings and house rents make it fly.

Tommie—Some houses have wings. I have seen many a house fly.

Father—You're smarter than your old dad; I always thought that no part of the house except the chimney flue.

On the Face of It

"What did you say when you were found coming out of the pantry with your hands all red?"

"Oh, I said I had jammed my fingers."



Deep

Nervous Tenderfoot: Is it far to land?

Sea Scout: Only half a mile straight down.

Pain, Pain, Paying

Johnnie having accidentally broken a pane of glass in a window was making the best of his way out of sight, but unfortunately the proprietor stole a march on him. Seizing Johnnie by the collar, he exclaimed:

"You broke my window, did you not?"

"Yes, sir," said Johnnie, "but didn't you see me running for money to pay for it!"



An Authority

Two men were hotly discussing the merits of a book. Finally one of them, himself an author, said to the other: "No, John, you can't appreciate it. You never wrote a book yourself."

"No," retorted John, "and I never laid an egg, but I'm a better judge of an omelet than any hen in the state."

Think and Grin

Scout Observation

After the lunch a tenderfoot was heard to remark:

"I eat so much that I feel uncomfort able."

"Johnnie's sentence is incorrect," smiled the very correct Scoutmaster. "What should he have said, boys?"

"I don't know the proper language," replied another tenderfoot, "but I noticed he et enough for two scouts."

Missmanship

Officer (to recruit): Goodness, gracious, man, where are all your shots going? Every one has missed the target.

Soldier (nervously): I don't know, sir. They left here all right.

An Open Question

Scout Scribe: This desk will do for the two of us. And here are two keys, one for you and one for me.

Asst. Scout Scribe: That's all right; but where's my keyhole?



Painless

Tenderfoot having his teeth worked on: Ouch.

Dentist: What are you fussing about, don't you know I'm a painless dentist?

Tenderfoot: Yes, sir, you may be painless, but I'm not.

Of Course

First Class Scout: Bill do you know anything about Napoleon?

Bill: You bet.

F. C. S.: Well, then, can you tell me his nationality?

Bill: Course I can.

F. C. S.: Corsican is right. I didn't know vou knew so much.



An Eye Catcher

A small boy came down street one day wearing a loud necktie tied in an extra large bow knot. Another boy said, "Jack, what have you got on that loud necktie for?" Jack replied, "I have holes in my shoes and I want people to look at my head."

Short Answer

Tenderfoot Scout (to Second Class Scout who has just had his hair cut): How is it that your hair is so short, did you have it cut?

Second Class Scout: No, I washed my head last night, and my hair shrunk.

Except for One Thing

First Scout (who has cooked some hunter's stew): This stew is good, isn't it?

Second Scout: Yes, but there is one thing I don't like about it.

First Scout: What is that?

Second Scout: The taste.

Stringing Him

Jack: Did you hear of the daring hold-up last night in my back yard?

Jim: No. What happened?

Jack: Two clothes-pins held up a shirt.

Think and Grin

Um-ah-yes

The office boy had made his hundredth mistake. The boss sent for him.

The Boss: Have you anything to say for yourself? If I made mistakes like you I'd never be where I am.

The Boy: Yes, but if we were all like you, you wouldn't be where you are either.

(The boy is still on the job.)

Mud Pie

1st Scout: I've lived on vegetables only, for two weeks.

2nd Scout: That's nothing, I've lived on earth for a number of years.



He Knew

Scoutmaster: Well, what would you do to disperse a mob?

Scout (passing Firemanship Merrit Badge, and after long thought): Pass around the hat, sir. They always leave when that happens.

That Darn Stocking

Scout—Is water on the knee dangerous?

Scoutmaster—No, not unless you have a hole in your hose.

Hand Painted

First Boy (as he shows his friend over the house): See that picture there? It's hand painted.

Second Boy: Well, what about it? So's our chicken house.

Not a Bat

Scout: I haven't slept for days.

Tenderfoot: What's the matter, sick?

Scout: No, I sleep at night.



Business

The tail-ender of the sales force who had been sitting around hoping that business would spruce up, put this question to the star salesman of his concern: "How do you manage to get so many orders, while I don't seem to get any at all?"

"Well," said the other, dropping his voice to an impressive whisper, "I make it a point to wear out the soles of my shoes instead of the seat of my trousers."

A Pertinent Question

Tom Cat: Is this to be a finish fight or for five out of nine lives?

A Dry Answer

Scoutmaster (emphatically): Johnny, what are you doing there in the rain?

Tenderfoot: Gettin' wet.



Yeh!

Teacher: Why is it that lightning never strikes twice in the same place?

Jimmie: Because after it hits once, the same place isn't there any more.

Think and Grin

Unlucky

Pat: Do you really think that thirteen is an unlucky number?

Mike: Shure, I know it is. Wan time I thried to fight thirteen men in a bunch.



One of Those Yell-Oh! Ones

Sam—How can you make a pumpkin shout?

Tom—Cut the middle out and make it holler.

Panes

Doctor—Did you open both windows in your sleeping room last night as I ordered?

Patient—No, Doctor, not exactly. There's only one window in my room, but I opened it twice.



Cracked the Yolk

Camp Cook: Say, the price of eggs have gone up.

Tenderfoot: I'll say so!

Camp Cook: I gave the grocer a dollar bill and he gave me back twelve scents.

Absolutely

Uncle: Only fools are certain, Tommy; wise men hesitate.

Tommy: Are you sure, Uncle?

Uncle: Yes, my boy; certain of it.

Wonder Did He Sit on Friday

Teacher: Now that you have read the story of Robinson Crusoe, Willie, tell me what kind of a man you think he was?

Willie: He was an acrobat.

Teacher: What makes you think so, Willie?

Willie: Because it said that after his day's work he sat down on his chest.

See!

Camp Outfitter: I want to see some mirrors.

Storekeeper: Hand mirrors?

Camp Outfitter: No; some that you can see your face in!



Of Course

Sea Scout: Yes, sir; that's a man-o'-war.

Land Scout: How splendid! And what is that little one just in front?

Sea Scout: Oh, that's only a tug-of-war!

And the Deaf Man Saw a Flock and Herd

A dumb man once picked up a wheel and spoke.

A blind man once picked up a hammer and saw.

The Pain Remains in Spain

Second Class Scout: If Germs come from Germany and Parasites come from Paris, what comes from Ireland?

Tenderfoot: Search me.

Second Class Scout: Mike Crobes.



The River

It's the glory of the morning,
It's the coming of the dawn,
And the sun rising red o'er the hilltops,
When the mist from the river is gone.

It's the laughing rush of water,
It's the thrushes' morning song,
And the splash of the bass when he's feeding,
The rocky banks along.

It's the far-off blue of the mountains,
It's the green of the nearer hills,
And the deep blue-green of the river,
The woodman's heart that thrills.

It's the wonderful glow of the firelight,
It's the call of the whip-poor-will,
And the quiet hush at the midnight hour,
When all the world is still.

It's the moon rising over the treetops,
It's the lullaby of the pines,
And the wonderful song of the river
Where the white spray leaps and shines.

So, pal, is it any wonder,
When we live dull city lives,
That we sit by the fireside and dream and think
Of that River of Paradise.

JOHN T. COLLINS



A slender, black-eyed, black-haired man in buckskins stood in the doorway, holding a smoking pistol

Quantrell of the Santa Fe Trail

By Edward Leonard

Illustrated by Remington Schuyler

TO the East down the long road a cloud of dust was rolling toward the Eagle Tavern, where Tuck Simms was sitting on the stone steps. Tuck's gun lay across his knees, and beside him were two fat prairie hens he had shot out in the brush.

It was not often that such a mass of dust as was now holding his attention was kicked up on that lonely road, and, before taking the hens in to his mother, he meant to wait and see what was going to emerge from it. After a moment something snow white in the yellow cloud gleamed in the light of the setting sun, and the boy's sharp eyes detected the big, hooped, canvas tops of a train of emigrant wagons. Soon the whole caravan was in plain sight. A little group of men on horseback led the way, and behind them, drawn by slow-moving oxen, Tuck counted a dozen wagons. Now he could hear the shouts of the drivers as they swung their whips, and the shrill voices of women and children.

"Gold hunters!" muttered Tuck, his eyes opening wide with excitement.

Sun-browned boys and girls and women whose faces were half hidden under huge sunbonnets peered out at him through the round openings at either end of the canvas tops as the emigrant train slowly filed past the old tavern.

Stopping his horse at the steps where Tuck was sitting, a long-haired, bearded rider demanded:

"Boy, how far to Independence?"

"Dunno," Tuck answered. "Never been there. But from my notion of it I reckon you folks will have to make camp for the night 'less you hurry."

The man swung himself to the ground, and stretched himself with a yawn. Evidently he had ridden a long way, and he seemed relieved to be out of the saddle.

"Seen any parties to-day going our way?" he inquired.

"Nary a one."

"Well, you'll see a plenty of 'em before long. Back in St. Louis there must have been two thousand wagons ready to take the trail, though that ain't half the outfitting point Independence is. And let me tell you, sonny, there's some pretty hard citizens in the crowd that's coming, too. This gold rush is bringing the bad ones from all over the country, and, mark my words, this part of Missouri ain't any too safe nowadays for respectable folks. We heard of some pretty black doings by prowling ruffians not many miles back from here, and we passed a house where the owner had been killed for his money the night before. You better tell whoever runs this tavern about what's been going on so he'll be on his guard."

The wagon train had passed on and the man mounted his horse to follow. Cast-

ing an appraising look at the boy's bright blue eyes, shrewd face and sturdy figure, he called out:

"Good-by, sonny. I reckon you'll be off for the gold fields yourself some time."

Tuck stood watching the caravan until it passed out of sight.

"By golly! I wish I was a couple of years older," he said to himself. "I'd be old enough then to get a job as one o' them wagon drivers. 'Tain't no use trying now. They wouldn't have me. And likely the gold will all be dug up before I can get out there."

His hopeless yearning to join in the great gold rush which was beginning in that spring of 1849 had been making his life bitter for weeks. Dejectedly he picked up the hens and went inside to give them to his mother, who, after watching the wagon train from a window, was getting his supper ready.

"One o' them riders has been telling me some robbers got into a house a ways down the road and killed a man," he told her. "He says there's some pretty bad characters driftin' round the country."

Widow Simms, tall and gaunt, had lived too long on the rough border to be frightened easily, but she was too sensible not to heed warnings of danger.

"I've run this tavern long enough," she said. "The country's getting too wild for a lone woman with only a boy to depend on and no neighbors near. It's time I closed up here and moved to Independence. It's a boom town now where there's lots of money to be made, and I've got close to five hundred dollars stowed away upstairs to get a start with."

"If you go to Independence," Tuck suggested, "you could get along without me, and I might get a chance to go with one o' them gold parties."

"You better wait awhile," his mother answered. "They don't want sixteen-year-old boys so long as they can get men. The trail's full of danger, and you're too young for it."

Tuck lapsed into glum silence and sat down to his supper. It was growing dark, and the widow lit a candle and placed it on the table. When her son had finished his meal he helped her with the evening chores. Except for the boy and his mother the tavern was empty, and there was little likelihood at such an hour that any traveler would come asking for lodging. Then the widow brought her work-bag into the candle light and began to sew, while Tuck, mindful of the warning the gold hunter had given him, sat on the other side of the table cleaning his gun before loading it. Beside him lay his powder charger and bullet pouch. He was proud of his old smooth-bore muzzle loader, which was good for either ball or shot, though he knew it could not be compared to the new guns that were coming into the market, some of which were made of cast steel instead of iron and loaded at the breech. There were also big-game guns with rifled bores, the rifling being supposed to make the bullet fly straighter. Some day he meant to have a cast-steel, rifled breech-loader, as well as a double-barreled pistol like those he had sometimes seen. A pistol that would fire two bullets without reloading would be a wonder in case of trouble.

"I reckon it's time to go to bed," said his mother at last, and she rose and went to the window to take a final survey of the road before fastening the beam across the tavern door.

"Land's sake, what a night!" she cried, as she peered through the little panes. "I can't see a thing."

There came the dismal call of an owl out of the dark, and she drew back with a shiver.

"This loneliness is sure getting on my nerves, Tuck," she said. "I'm going to move to Independence; that's certain.

There's no telling what dreadful thing may happen here on some dark night like this, with the country overrun with black-hearted men that this gold rush has brought."

A low, uncertain sound just outside the door caused her to turn swiftly, every nerve alert.

"What's that!" she cried.

Both stood listening, their eyes on the door. It seemed to Tuck that the door was moving. The next moment he was sure of it. It was being pushed open almost imperceptibly and without a sound. Tuck Simms was no coward, but he felt his heart beating against his ribs.

The door opened a bit wider, and a man's face appeared—a round, red face framed in an unkempt mass of red hair.

"What you want?" Tuck demanded.

"Got anything you can give us to eat?" inquired the visitor. As he swung the door wide open another man came into view close at his heels. Each carried a gun, and the red-headed one had a bowie knife hanging from a belt. The candle light, falling on their faces, disclosed the fact that Redhead's partner had only one eye. They were as rough-looking a pair as Tuck had ever seen.

"I don't get meals at this time of night," Widow Simms announced sharply.

"I reckon you'll get 'em for us," said Redhead.

"Well, I won't," the widow snapped back at him. "An' if you don't want the law on your heads you'd better be going right now."

Redhead threw back his head and laughed loudly.

"That's a good joke, old woman. The law! Why, there ain't no law in this here country till you git to Independence, and dern little of it there."

"You needn't think I'm afraid of such a pair of knaves as you," said the widow, as her gaze wandered around the room after Tuck's gun.

Redhead laughed again.

"Me and my partner here has been hearin' a few things about you, widow, from which we calculates you ain't any too poor. We're hankerin' for food, but we got a still worse cravin' for money. Out with it, widow."

Widow Simms set her jaw in grim determination and drew her lips into a thin, straight line. Tuck knew from thorough experience that when his mother looked like that nothing on earth could swerve her.

"You won't get a cent," she declared fiercely, "not a cent; not if you kill me."

At the same time she was thinking, "Where is that boy's gun? What has he done with it?" She glanced inquiringly at Tuck, but he was staring too intently at the two intruders to notice her.

" 'Tain't no use arguin' with her," put in the one-eyed man. "You leave it to me. I know a way to fix her. Just you keep watch on the boy, Red."

One-eye dropped his gun on the floor, crossed the room and caught Widow Simm's hands in an iron grip. Dragging her roughly to the table, he pulled the lighted candle toward him.

"I reckon holdin' her fingers over this here flame will make her change her mind quick enough," he said.

A wave of fury swept over Tuck. No longer was he afraid of Redhead's gun; he no longer thought about it; in his fierce hatred for One-eye his own danger was forgotten as he saw his mother's hands, in spite of her struggles, being drawn slowly nearer to the flame. As a matter of fact, Redhead's attention was absorbed for the moment by his partner and the widow, and he failed to notice the boy's swift reach under the table. He had left his gun lying there, where, with only a solitary candle lighting the room,

it was too dark for the men to detect it. With both hands gripping the trusty old weapon, he drove the stock with all his strength squarely into the pit of One-eye's stomach. The man doubled up and dropped to the floor with a groan. Instantly Tuck swung his gun around to point at Redhead, and, with no time to take careful aim, pulled the trigger. There was a flash and a roar. He had missed, for Redhead stood facing him unhurt, his gun at his shoulder ready to fire.

Tuck stood as if paralyzed, staring dully at the muzzle pointing at him. He knew that Redhead, taking aim so slowly and deliberately, could not miss. He turned cold with fear.

At the instant when it seemed that Redhead must be ready to pull the trigger, Widow Simms, with a despairing cry, rushed in front of her son, shielding him with her body.

"Shoot me if you want to!" she cried, facing Redhead with flashing eyes. "Kill a woman if you're coward enough."

"I ain't partic'ler," returned Redhead, still pointing his gun as he stood a dozen paces away at the end of the long room. "I'm li'ble to if you don't come out with that money mighty quick. And I 'low I'll either shoot that young devil o' yourn or wallop half the life out of him before I'm done."

A slight sound from the spot where One-eye had fallen turned his attention from them for an instant. The man was recovering from the knockout blow Tuck had given him, and was reaching for his gun.

At that moment a loud report rang through the room, and, shattered by a bullet, the arm with which One-eye had grasped his weapon dropped helpless. Redhead's mouth gaped wide open in astonishment when looking at the doorway he discovered standing there a slender, black-eyed, black-haired man dressed in buckskins, who was holding a smoking pistol.

Tuck, too, was staring dumbfounded at this man who was standing there as cool and unconcerned as if such a scene as he had stepped into were a daily occurrence in his life. The man's clean-cut features plainly belonged to the white race, but his face was tanned to almost as coppery a brown as an Indian's. The broad brim of his hat was turned up in front and was fastened to the high crown with a silver buckle. Long fringes decorated the sleeves of his deerskin hunting shirt and ran down the sides of his leggings as far as his moccasined feet. The moccasins were ornamented with elaborate designs worked in colored beads. From his neck and suspended from a single red-leather cord hung a perforated bullet, with a large, oblong, red bead on each side of it, such as a Crow chief wears as his "medicine" to excite the superstition of his warriors. From his broad, bead-embroidered belt hung a leather pouch. The only weapon he carried was the pistol in his hand. One single barreled pistol—and he had already fired it. And Redhead's gun loaded!

"He's lost!" Tuck muttered to himself as he tried to steady his shaking nerves. "He ain't got a chance—not a chance!"

As the situation dawned on Redhead, his look of astonishment gave place to a broad grin. He was the master now; he was sure of it—so sure that he was in no hurry to shoot and stood with the stock of his gun resting on the floor while he gloated over the prospect.

"I got yer, stranger," he chuckled. "You better be sayin' your prayers, for I'm sure goin' to put a hole clean through yer so you'll have no more chance to go nosin' round interferin' in other folks' business."

The man in the doorway moved not so much as a muscle, but just the faintest of smiles passed over his face. It was just

enough of a smile to give Tuck a ray of hope. Yet, though his wits had never been sharper than in that moment, he could not understand what chance the black-eyed man could possibly have in this game of life and death that seemed to give him such absolute confidence.

Suddenly in the black eyes came a steely glitter, and the dark face grew as hard as flint. Then for the first time, the man spoke.

"If you know what's good for you you'll drop that gun," he said coolly.

"And s'posin' I shouldn't?" Redhead demanded.

"Well, suit yourself," returned the man in the doorway. "It don't make much difference to me either way. But, between you and me, I've got about all the reputation as a killer that I need, and I don't have any special yearning to add to it."

"Mebbe you've forgot that that little shooter of your'n is empty, stranger."

"Maybe I have. But I'll find out."

Pointing the pistol at the floor, he pulled the trigger. And—wonder of wonders!—the pistol spoke again and a bullet buried itself in the rough boards. It was surely magic.

The black eyes twinkled merrily as they saw Redhead's look of bewilderment.

"This little gun's got three more balls in it for you and your partner in case you're still looking for trouble. Reckon you never heard of a revolving pistol. Kind of a new thing on the border yet, but there'll be plenty of 'em in a year or so. Just you take a bit of advice from me—don't argue with a man who carries a revolver."

Stepping quickly to Redhead, he took the thug's gun away from him and laid it on the table, his moccasined feet making not the slightest sound as he moved about the room. He picked up One-eye's weapon, placed it beside the other, then sat down in one of the chairs beside the table.

"I'm sorry I didn't get here a few minutes earlier, ma'am," he said. "I could have saved you some worry. The border's a bad place nowadays—a bad place, especially for a woman."

Widow Simms was too much concerned just then over the groaning man on the floor to have a thought for anything else.

"What are we goin' to do about him?" she inquired anxiously.

"Oh, don't worry about him," the black-eyed man answered. "We'll throw both of 'em into the woodshed or the barn presently, and I'll rope 'em up for the night. In the morning I'll take 'em to Independence and turn 'em over to the sheriff. They've left a couple of horses outside. I know I ought to have killed these two rascals, but I didn't have the heart to do it. Got any rope 'round the house, boy? And, by the way, Redtop, keep away from that door."

Tuck went out, and came back before long with a coil of rope. By that time the black-eyed man had heard from the widow the story of what had happened before his arrival.

"Good boy!" he exclaimed, rising and throwing a fringed arm around Tuck's neck. "You did fine. A boy like you ought to be out on the other side of the border. How'd you like to take the gold trail?"

"The gold trail!" cried Tuck. "Will you gimme a chance?"

"Well, I'm going with Jim Coulter's party next week, and Jim's looking for wagon drivers. Don't suppose he's keen for taking boys but he'll take you if I say so."

"I guess you'll have to go, Tuck," said Widow Simms with a sigh. "I can get along without him now, mister, because I'm going to move to Independence. I

don't know you nor nothing about you, but I'd bet my last dollar you're all right."

"Ever hear of Jeff Quantrell, ma'am?"

"The trader? Quantrell of the Santa Fé Trail?"

"That's me. Though the old trail won't see me any more for many a long year, I'm thinking. This California gold fever's got into my bones."

As he tipped back in his chair the two thugs, the widow and her son stared at him fascinated. To Tuck this man was like a god. Who on that border had not heard of him? Tales of his exploits were told in every household.

"Gosh!" Tuck muttered, thrilling with excitement. "Gosh! I'm going with Quantrell of the Santa Fé trail."

Scout Trails of Yesterday and To-day

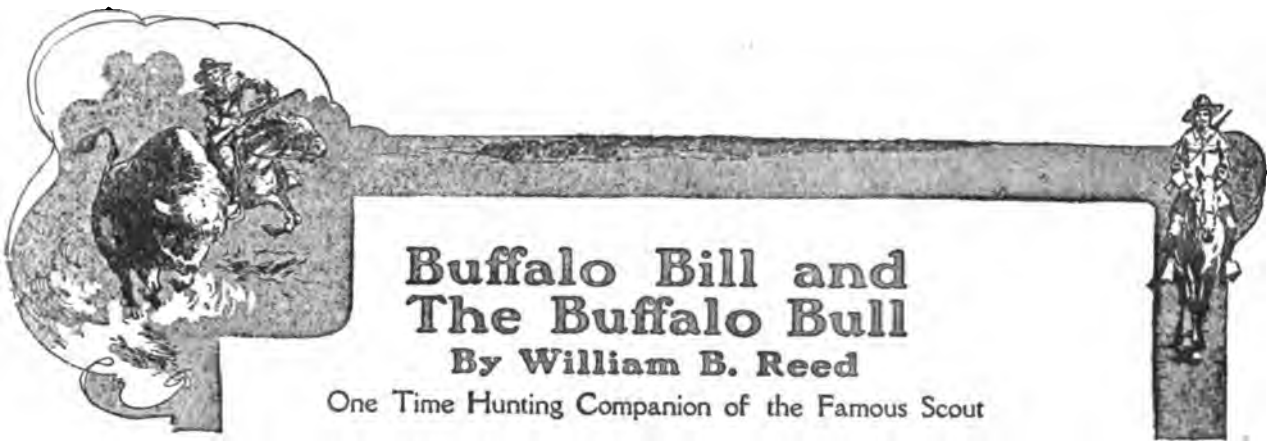
By Remington Schuyler

Up Scouts! and away
With your hiking kits.
Up Scouts! and away—
Give your life free play.
Find adventure in woodland and field.

It's the same old trail,
And it drives straight west
From the rising sun,—
It's the trail that leads
To places unknown,
As day is begun.
Up Scouts! and away—
With your hiking kits.
Up Scouts! and away,—
From all trails to-day
Comes the call of adventure.

There's an ancient tree
And a milestone old,
Where the road swings west,—
There's a fine old house
And an open view,
From the hill's high crest.
Up Scouts! and away
With your hiking kits.
Up Scouts! and away—
Let your hiking to-day
Blaze a new found trail on the old;

Where hunters, trappers and Indians too,
Hiked along to the West
When adventure called.
Their hearts beat gay,
They sought free life
At dawn of day.
Up Scouts! and away
With your hiking kits.
Rise up! and away—
On the old trails to-day
There's adventure waiting
Go seek it!



Buffalo Bill and The Buffalo Bull

By William B. Reed

One Time Hunting Companion of the Famous Scout

A RAILROAD fifty years ago, opened up a country which became world famous as the home of America's big game.

Through the valleys of the Platte Rivers (North and South) roamed hundreds of thousands of majestic buffaloes; the great plains were alive with antelopes, wolves and coyotes, while in the foothills and mountains the lordly elk, moose, caribou, white and black tailed deer, big-horns, mountain lions, black, cinnamon and grizzly bears found safe sanctuary.

Cheyenne, Wyoming, became a center of outfitting, also the headquarters of half a hundred professional hunters, scouts and guides. Men came here from all parts of the world to kill big game under the guidance of such celebrated hunters as "Buffalo Bill," "Wild Bill," "Texas Jack" and "Buckskin Harry."

One bright September afternoon, the writer was sitting in the office of the old Eagle Hotel with Buffalo Bill, planning a short hunting trip down the Platte River, when we were approached by a prominent citizen of Cheyenne, who was also a prominent "deacon under protest" in the only active church organization then on the map in Wyoming Territory. He broke into our plans with such a novel request that at first we were inclined to treat it as a joke; it was that we should take the minister of his church with us on a buffalo hunt, under the following proposition:

"You know Redford, that new preacher of ours, is mighty fond of sport, and old 'Buckskin Harry' has taken him down on Crow Creek several times shooting antelope and white tails, but he is dead set on killing a buffalo. 'Buckskin' had to go up to Red Cloud this week on government service and may not get back before cold weather so I told the parson I would try to get you fellows to take him out, and I'll make you a fair proposition. You know I have a horse ranch down at Big Springs, with some good hunting ponies in the bunch. A letter from Henderson, my foreman, yesterday tells me that the country down there south of the Platte is just black with buffaloes. Now if you'll take the parson down there on No. 2 next Tuesday, I'll write Henderson to get in the ponies, give you the best entertainment the ranch affords, and I'll pay all expenses of the trip. Of course, the preacher is a 'tenderfoot' but 'Buckskin' says he's a fine horseman and a good shot with his Winchester, so I feel sure he will make his 'kill' if you give him a chance."

Cody and I considered the question for a moment and agreed to the proposition, provided the date could be postponed for a week as Cody was obliged to go up to a ranch on the "Chug" to see after some horses ranging there.

Nearly a week passed before he returned and in the meantime, our friend the deacon, had received word that two of

his cousins were on their way to Cheyenne to have a buffalo hunt and it was proposed that they should be included in our party. Cody and I now hesitated—it was more than we had originally bargained for; to look after the welfare of one raw tenderfoot on a buffalo hunt was bad enough, but to have three on our hands might not prove an easy matter. However, Cody laughingly remarked: "Well, Doc, they have the best of us, so I reckon we'll have to take our chances of bringing home one of these greenhorns in the baggage car."

So we agreed to the change and the matter was settled. Two days later we were introduced to the cousins from Ohio. One was a giant six feet four and weighing 230 pounds, the other was a man about 50 years of age, who measured more around the middle than he did up and down. Cody and I now fully realized that we had some job cut out for us, but of course it was too late now to back water and preparations were quickly completed for the hunt.

At six o'clock next evening we arrived at Big Springs which at that time comprised a rude ranch house, a water tank, telegraph office and a horse corral. The inhabitants numbered three persons, Henderson, the foreman, and two half-breed Mexican "broncho busters." Henderson informed us that the Mexicans had gone out on the ranch to get in the horses but had not returned, though he expected them in any hour.

We were soon served with a most bountiful supper consisting of antelope steaks, buffalo humps, canned goods and coffee, and after our repast we adjourned to the open air.

The night was beautiful and clear and every star in the sky shone with that wonderful brilliancy which is peculiar to the rarefied atmosphere in the high altitudes of the Rocky Mountain country. And now occurred one of those incidents which mark the strange kind of characters found in the Far West in the early days. There was some discussion about one of the constellations in view, when suddenly Henderson, the disreputable looking foreman of the ranch, who had been sitting apart almost unnoticed in the company, burst forth into one of the most instructive and interesting discourses on Astronomy to which I have ever listened. One constellation after another was pointed out and each star called by its classical name, known only to men of advanced education. Of course, we were surprised and when the parson ventured to use a little Latin, Henderson again turned loose and quoted odes of Horace in Latin and passages from Homer's Odyssey in the Greek as readily as one might recite verses in English.

We were amazed until Henderson modestly admitted that he had been a Professor of Ancient Languages in an Eastern College, and later confessed that a craving for whiskey had caused his downfall. Here was a man capable of filling a high position in educational circles, destined to live as a "horse wrangler," dirty, unshaven and practically an outcast from civilized society. Such the stern laws of fate! And the case of poor Henderson was not uncommon in the Great West; I once saw an honor man of Yale University employed as a dish-washer in a second class restaurant in Denver; and our parson told me that in his Bible Class composed of twenty odd men taken from the various walks of life, he had found six men who could read the Greek Testament better than he could.

After the Henderson episode we turned in for the night, and as there were only three "bunks" in the cabin, these were assigned to the guests from the East and the rest of us rolled up in our blankets on the floor. Our rest was somewhat broken, however, by the parson who persisted in talking in his sleep. He was evidently very much "het up" about something and

Cody said he kept talking about "trampin' on lions and adders; and thousands fallin' on the side and ten thousand fallin' on the right hand, etc." and he guessed "the parson was tryin' to make up a sermon or dreamin' he was killing a whole herd of buffaloes," we never knew which.

About four o'clock next morning the Mexicans came in with a few of the horses. Only three of the ponies were trained for buffalo hunting; the rest of the bunch were unbroken bronchos which never had been saddled. There was now trouble ahead of us. Of course the two Eastern cousins must be provided with ponies that were broken as both were heavy men and unaccustomed to horseback riding. Col. Cody refused to ride anything but a trained hunting pony, so it was "Hobson's choice" for the preacher, Henderson and myself.

Our course from the ranch was along the North bank of the river for about five miles to a point where we might ford the stream safely. The South Platte is one of the most treacherous rivers on the map; running for miles in a narrow channel, then suddenly spreading out a half-mile in width, and nowhere over a foot or two in depth, with large areas of dangerous quicksands. It was to avoid these quicksands that we traveled so far before crossing the river, and even after this precaution we narrowly escaped a serious accident.

Henderson was leading the procession and cautiously picking his way through the shallow water, when he suddenly changed his course sharply to the right and called to those following to be very careful as there was a large pocket of quicksand directly in front. I was the fourth man in line and had passed the point of danger, when a yell of terror directly behind me caused me to turn in the saddle in time to see Mr. Yates, the big man of our party, falling off his horse, which was madly plungin~ in his efforts to escape from the mobile pocket that threatened to engulf both horse and rider. For a moment, it looked serious.

Fortunately, Buffalo Bill was sixth and last man in the line. His pony was well trained and still on firm ground. In a few seconds Cody's lariat was dropped over the head and shoulders of the struggling Yates and in another ten seconds Cody's pony had dragged him out of the danger zone. The rescue of Yates' pony was more difficult, but Cody, Henderson and I got our lariats on him and soon had him on safe ground, and not much the worse for the experience.

When all had reached shore in safety, Cody rode cautiously up onto the river bluffs to locate the buffaloes. He came back shortly and reported a large herd feeding on the high table-lands about three miles up the river and about two miles back on the plateau. It was now decided to move up under cover of the bank to a point opposite the feeding herd; then we were to divide into two parties, three persons in each, one party to work cautiously up the first large coulee running down through the bluffs until beyond the buffaloes; the other party to go on up the river for a couple of miles further and then work up the next large coulee and get behind the buffaloes.

Before separating, Col. Cody gave the greenhorns particular instructions, cautioning them not to dismount until the hunt was over, and in shooting to aim only at a point directly back of the shoulder, and under no circumstances to shoot a buffalo in the front of the head, as a light rifle bullet would not penetrate the inch thick skull, often reinforced by hardened clay, accumulated from the buffalo "wallows."

Our party now divided,—Henderson taking the two gentlemen from Ohio slowly up the first coulee, while Cody, the parson and myself proceeded rapidly up the river under cover of the bluffs until

we found another large coulee about two miles above the first.

Cody and I found the preacher very hard to restrain, he was so nervous that he could scarcely talk in a rational manner, and in spite of all we could do persisted in riding in advance of us. We had reached a point more than half way to our destination beyond the herd, when suddenly in passing a small "side draw," three old buffalo bulls appeared within fifty yards of the main coulee. In a moment, all that had been said to the parson was forgotten, and with wild yells, he dashed madly up the draw, firing his Winchester and trying to steer his terror-stricken pony toward an enormous old bull which was making tracks for the body of the herd. Further caution was useless, and it was now "every man for himself."

Cody rode straight for the center of the herd, and I was following as best I could on an untrained broncho, when my attention was directed toward the now crazy parson; he was urging his pony with quirt and spurs and had come dangerously near to the old bull.

The greatest proportion of a buffalo's weight is in front and they can turn as if on a pivot and charge so quickly that only a trained pony may escape the charge. I saw that the parson was in imminent danger of just such a grave disaster and galloped after him, calling at the top of my voice, trying to warn him of his danger. He was certainly a wonder on horseback, and had succeeded in getting within ten or fifteen paces of the buffalo's flank, and then like a flash his rifle went to his shoulder, there was a crack and the mighty beast pitched forward.

But it was not a kill; the parson had tried for a shot behind the shoulder, but had made no allowance for his pony stopping short and whirling around and the result was that the bullet had struck the buffalo just above the kidneys, glancing off the spine; it had paralyzed him for a moment, but caused no permanent injury. The parson, supposing he had killed the bull, sprang off his pony, which had carried him perhaps fifty paces to the rear before he could get him under control, and he had hardly gone a dozen paces back toward the buffalo before the great beast struggled to his feet and started to charge the dismounted man. He turned to recover the pony, but the frightened animal was a hundred yards away and running at top speed. It looked as if the man was doomed to die. Twice I threw up my rifle to try a chance shot, but each time found the parson right in the line of fire and the risk of hitting him instead of the buffalo was too great.

The preacher was armed only with a light 44-28 Winchester. It was a moment of awful suspense, the bull was now within twenty-five feet of the man, and as he lowered his head, leaving his massive shoulders exposed, the rifle cracked, and the mighty buffalo went down for a moment, and as he again staggered to his feet, the man ran up close and planted a ball through the heart.

When I reached the spot a moment later the parson's nerves had given away completely. He threw himself down upon the great carcass of the buffalo and cried and laughed hysterically for half an hour before we could get him quieted.

The parson decided that he had enough of buffalo hunting and I believe he never tried it again. For myself the hunt was a failure, as I had given all my attention to the parson until the herd was clear out of range. Henderson got two and Cody three fine young buffaloes which furnished us all the choice meat we could pack in. On the train homeward bound next day, Buffalo Bill and I did a lot of concentrated thinking and on one point we agreed, "never again to take a bunch of greenhorns on a buffalo hunt."

Worthless Wallace

By Irving James

Illustrated by Enos B. Comstock



THERE was something most uncircus-like about the little group of four men, bony nag and rattle-trap wagon gathered in the lee of the menagerie tent, hard by the keepers' private entrance, two hours before leather lunged barkers and numerous "free exhibitions" announced the beginning of the afternoon performance.

The quartet of men was composed of Sol Berger, sheriff of Winnatonka County; a Frenchman billed as "René De Hante, the World Renowned and Celebrated Seal Trainer," but popularly known as "Little Hysterics"; a fat, tow-haired Hollander named Peter Van Aaken, and old "Boss" Bradley, chief stockholder of the Bradley and Brockway Circus. Besides the raw-boned horse, the group held another member. In a snug wood and iron barred cage that rested in the rickety wagon was Wallace, the last of a group of five performing seals, once the pride of René.

"Ain't no more t' say about it," rumbled Sheriff Sol. "Yeh ain't got t' two hundred dollars t' pay Pete what yeh owe him. Yeh confess t' owing same fer three years when t' circus was last in Winnertocker County, an' whereas t' aforesaid Pete has been smart enough to watch for yeh and ketch yer right here within t' county limits an' get out a warrant rit for yeh, we're a-goin' t' git satisfaction, by 'tatchin' t' on'y visible property yeh got, an' we're goin' t' take it with us. Here's t' papers as says so."

"But Wallace! The seal, he is all I have left in the world," raved René. "You take my seal, my job he goes with heem. I die of grief! Also I starve! Two hundred! Bah! He wort' two touzand dollar."

"Ches? I sell him back for fifty," said the disconsolate Peter, almost hopefully.

"Feefty! Feefty! Please, Mr. Bradley, please, please just de feefty. Wallace he wort' more, oh, much more," cried René, clutching eagerly at the arm of the grizzled old circus veteran.

"Nope, not a cent. You owe me five hundred now an' I only been keeping you and your one seal on thinkin' I might get some o' my money back by workin' it out o' you. I don't throw no good money after no bad let me tell you. No, sir."

René sobbed. Dramatically he threw himself against the bars of Wallace's cage and cried. Presently he relapsed into a fit of temper, swore and jumped up and down and shook his fists in the air. Then in utter frenzy he rushed from the group. All three watched him plunge headlong down the circus lot and disappear in the gathering crowd.

"My, ain't he fit to be tied?" queried Boss Bradley with mild concern. Then, turning to Peter, he added, "Tough on you, ol' boy. That seal's just about as worthless as nothing at all. Since the other four in the group died he won't perform for a cent. Guess he's lonesome."

"Ches, he ain't much, iss he? Vont even make a good watch dog," mourned Peter, hopelessly.

"Well, I done my duty, Pete. As fer t' fee, I ain't a-goin' t' press yeh fer it. If yeh ever git more'n fifty cents fer t' critter, I'll go halves on t' balance. S'long," and Sol grinned as the sad-looking Dutchman climbed into his creaking wagon and started home.

Peter lived ten miles back in the mountains. He had driven in that morning, hopeful of recovering his two hundred dollars, for he felt sure that any one connected with such a gay and glittering institution as a circus must be possessed of great wealth. He was driving home a sadder but wiser man.

As his wagon creaked over the steep, uneven mountain road, he all but addled his clumsy brain trying to conceive some possible use the seal might be to him. But the more he thought the sadder he grew for all he could understand was that Wallace would, like other live stock, require food, and food cost money.

"He dond lay some eggs like a hen. He dond gif milg like a cow. Only he bargs like a tog but he aind so much use as a cat," he soliloquized.

Presently the wagon rumbled over a bridge that spanned a mountain stream. Peter sat up straight and stopped the horse

"Dods id. He aind so much use as a cat. Vot I do mit a cat vod aind vort nodding to keep. I drount him. Dot I shoudt do for the seal also, and den no more vorry."

Peter climbed down, struggled with the traveling cage that held Wallace, bumped it from the wagon to the ground, and dragged it to the edge of the bridge. Then with a grunt he pushed it over.

The pool under the bridge was deep and rimmed about with rocks. With a crash and a splinter of wood the cage landed on the edge of a bowlder, hesitated a moment, and then tipped over into the pool with a splash and settled to the bottom.

Peter on the bridge watched it sink through the clear depths.

"Dots all I shut see off dat two hundred tollars. Bud ids better dot I dond have two hundred tollars more feed oxpense to keep dot—— Vot's dis! He is coming oud. Py jingoes, like cats he dond drount. He svimt right oud. Maybe I better go vay, odervise he mide foller me home. I dond vant him. Maybe I gome back some day and fish up dat gate for a shigen goop. Dots all."

As for Wallace only the immersion in cold mountain brook water saved him from utter extinction. The day had been fraught with numerous painful experiences beginning with a long ride in a scorching sun over a dusty mountain road which was far from his liking and reaching a climax in a dizzy whirl through space and a crash that jarred him into unconsciousness. Coming to in the bottom of a cool, crystal-clear pool was like passing into another world.

He realized that something most unusual had happened and made haste to force his blunt, bewhiskered nose and bulletlike head through a yawning crevice between the boards of his prison. Then with several sturdy wriggles he worked his way out and bobbed joyously to the top.

The moment his sleek and dripping head broke the surface of the water and he saw, instead of the dirty white porcelain sides of the water tank in the railroad car, wet lichen, mottled and moss covered rocks with balsams reaching above them, and over all a delightfully blue sky, he could not restrain a series of hoarse throaty barks of ecstasy.

For several minutes he lay perfectly

still on the water and rolled his head from side to side, noting everything. Absolute freedom had been thrust upon him so suddenly that he scarcely knew what to do. Presently a vivid red-start flashed onto a hemlock bough that hung over the pool and began to scold at him. Wallace watched the bird with interest for a moment, and barked back. Then, his circus training mastering him, he seized the opportunity to exhibit his ability before this tiny audience. With a sharp yap and a splash of his flippers he dove deep and began swimming round and round and round the pool at a race horse speed, interrupting his mad dash with an occasional somersault. But when he came to the surface again with a snort and a shower of spray, the gay little red-start had gone.



"He dond drount!"

This seemed to disappoint Wallace and he looked quite downcast. But not for long. As he wallowed there on the surface his quick eyes caught the gleam of a sucker rolling down beside a big stone in the bottom of the pool. Long dormant instincts were aroused immediately and like a flash he was under, plunging headlong toward the fish. The sluggish sucker never knew what doom overtook him. Wallace picked him deftly out from under the stone and swept to the surface crushing him in his strong jaws. With a flirt of his head he tossed the fish into the air, caught it and gobbled it down.

All animation, he raised himself half out of the water and looked about as if expecting applause for this spectacular act. The rocks and the trees were silent and Wallace settled back with an almost wistful look in his big soft brown eyes.

But he soon perceived that what new existence denied him in the thrill of applause it made up abundantly in a far more satisfying solace. None too well fed these five years past, the seal found himself dropped in the midst of a veritable banquet, as it were. He could see the glint of many suckers as they nosed among

the rocks of the bottom and before long he was plunging recklessly about the pool gathering a meal such as he had never before been privileged to eat, then glutted with food, he slipped over to one of the wet moss-covered ledges and sprawled in the warm August sunlight.

But as he lay there, his sleek gray brown coat glistening wet, he began to peer about restlessly. For months past, since the other members of René's troup had died, one by one, Wallace had been peculiarly lonely, and now as he sat there on the waterwashed rock this loneliness assailed him more than ever.

His intelligent bewhiskered face took on the expression of a worried old man and he shifted awkwardly from side to side on his clumsy flippers while his long shining neck wove back and forth as he peered among the rocks and even among the trees of the forest in search of the other seals.

Always, however, he faced down stream for something told him that in that direction lay companionship. Ere long, he felt a peculiar urge to move on down the stream. Finally he slipped silently from the rock and obeyed the call of adventure.

It was a typical mountain brook, this stream that Wallace traveled, and it rushed through a deep wooded cleft in the mountains, sometimes pausing a little to fill a clear rock-encased pool, and often sliding down grade so swiftly as to form a series of white-water rapids. Now and then it was interrupted, and dropped suddenly downward by a waterfall, that rumbled into some deep foam-covered pool between the ledges.

But all this added zest to Wallace's journey. It was really fun for him to run a rapids, even though he did occasionally bump a water-worn stone. And as for the falls, he plunged over them in high glee, yapping loudly the while, and more than once after he swam clear of the froth and spume in the pool below, he looked for a way to climb over the slippery rocks and do it over again. But always before he discovered a route to reach the top of the falls once more, the urge to go on would dominate him, and with a bark of delight he would turn and plunge forward with the water.



A grumpy old black bear sat hunched on a log . . .

As he proceeded down stream he found himself getting deeper into the mountain wilderness. Thick evergreens fringed the banks and on either side timbered mountains reached skyward. Now and then he sur-

prised furtive forest dwellers who came to the stream. Once he bobbed to the surface of a pool almost under the nose of a drinking doe. With a whistle of surprise she leaped back, reared on her hind legs, then turned and with white flag up disappeared in the forest.

Further on a grumpy old black bear sat hunched on a log, with one big paw hanging into the water. He was fishing and his attention was concentrated on several suckers that were slowly working within range of his paw, when Wallace plunged into the pool with a splash and a bark.



Wallace had submarined him

Whoofing his surprise, the bear scrambled up on all fours and looked inquiringly at the seat. But to Wallace there was something menacing in this big bulky creature, and before the bear could make up his mind just what to do the seal had flashed past and gone splashing down the rapids below.

Twilight began to come on in the woods, though the rich golden rays of the sun still washed the mountain tops. The stream began to be less boisterous, too, for it ran along a more even course in the thickly wooded valley bottom. Wallace seemed to welcome this change, for unaccustomed to such violent exercise, the exertion of running rapids and plunging over waterfalls had tired him. He lolled along comfortably now, his head above water, and his tiny eyes always searching the bank. Presently, among the trees he discovered the form of a man. He was a strange looking individual though, dark of visage and with black hair and heavy brows and there was something forbidding about his appearance. Wallace did not know that he was face to face with Indian Joe, a half breed trapper and an unprincipled poacher; the only outlaw the mountains boasted. He restrained a bark of greeting, however, and prepared to go under the surface, for he had misgivings. The man caught sight of him. He made a quick move, and Wallace dove just as there was a flash and a roar. Something struck the water with a spat where his head had been.

"Miss, by gar," swore the poacher, "anyhow, I git dat beaver yet." In the halflight of the evening he had not seen that he was shooting at a seal.

Then, because he knew the firing of a gun near a beaver stream might bring some one to investigate, the halfbreed slipped off into the forest and disappeared.

Wallace swam on and on under water, determined to put distance between himself and this unfriendly human. But as he swam he discovered that the bottom of the stream changed from rock to mud and he was conscious of greater room in which to maneuver. When his supply of air was spent he bobbed up to the surface and looked about. He was surprised to discover that he had passed out of the stream

and into a huge land-locked pond, acres in extent.

His quick eyes made another discovery, too. The big pond had occupants. Wallace saw a sleek round head break the surface some distance away. The head moved toward a big dome-like clutter of sticks that formed an island almost in the center.

Wallace watched eagerly, almost aquiver with excitement, and presently he saw the strangest seal he had ever come in contact with climb drippingly out of the water and crawl to the top of the dome of sticks, where it sat up on its hind legs and peered sharply about while it folded little hand-like paws across its breast.

Wallace watched, eager to take in every detail of this new animal. Its body was heavy and chunky as compared with the fine graceful torpedo-like lines of other seals. Moreover, it had four distinct feet instead of clumsy flappers, and, strangest of all, a tail that was long and very broad and very flat. The seal did not know that he was beholding for the first time one of the most intelligent and shyest of forest dwellers, a beaver.

While he watched other heads began to appear and when he discovered how many there were he swam eagerly forward, uttering a series of sharp yapping barks of greeting.

The noise he made caused consternation in the beaver colony. The gray whiskered old leader who had climbed to the top of his house as sentinel, froze in a listening attitude at the first yip. He saw the seal swimming down the pool and he knew where the noise came from, but it took him some time to make up his mind whether this newcomer was dangerous enough to warrant his sounding an alarm. Wallace moved so swiftly, however, that before the big beaver could decide to strike the warning signal with a resounding slap of his tail on the water the seal was almost under his nose.

For a moment each looked at the other. The beaver, still undetermined, eyed him doubtfully. Wallace was so glad for companionship that he willingly accepted things as they were. With his friendliest bark he swam forward and started to drag himself laboriously out of the water to the dome-like pile of sticks upon which the old beaver crouched.

Right there Wallace made a grave error in beaver courtesy, for the big animal was, by virtue of his age and wisdom, not to mention fighting ability, leader of the colony, and as such it was his right alone to sit on the beaver dome and to act as sentinel, while the others spent the nocturnal hours at work. For that reason, his first impression, when Wallace made his lumbering attempt to climb on top of the house, was that the seal was about to dispute his leadership, and in a towering rage, with whiskers drawn back and long knife-like yellow teeth bared, he rushed at the intruder.

Wallace was so startled and chagrined that he tumbled back into the water again with a splash, and the beaver, seeing that he had a temporary advantage, plunged in after him. At this point the old warrior received the biggest surprise of his long and industrious career. The best swimmer in the colony, he felt that he could easily master the newcomer in the water, and he rushed at Wallace. The erstwhile circus performer slipped quickly out of reach and watched the beaver come on. But just as the old fellow was ready to sink his teeth into the seal's tender nose, Wallace disappeared with a swirl and a splash, and the next instant the beaver, with a look of surprise and consternation, did a most unusual flip-flop in the water. Wallace had submarined him, so to speak, by the simple expedient of diving deep and

coming up under him. His hard round head was planted in the old beaver's stomach so forcibly that all the wind was knocked out of him. So was much of his desire to fight.

With a grunt, he turned and tried to take refuge on top of his house, but Wallace, his playful mood stirred almost to roughness, bumped him again and again, and finally coming almost clear of the water he dropped right on top of the veteran and shoved him under.

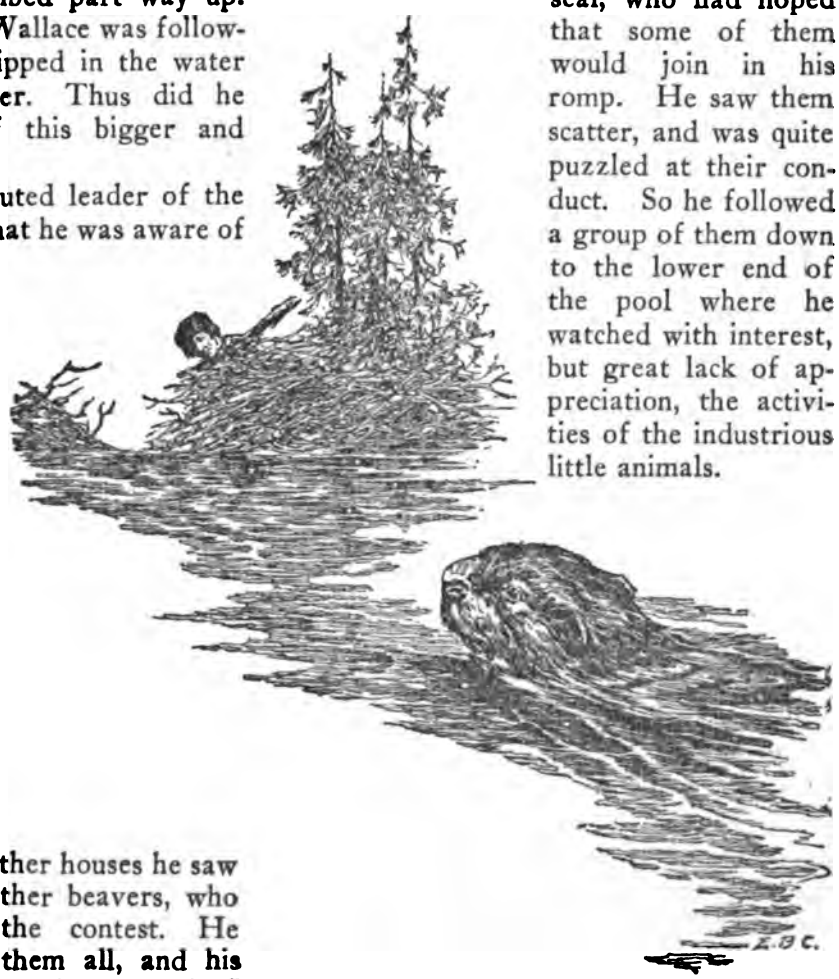
The beaver seemed panic stricken when he came to the surface. He made for the beaver house and climbed part way up. But when he saw that Wallace was following him, he quickly slipped in the water again, and dove under. Thus did he abdicate in favor of this bigger and stronger stranger.

Wallace was undisputed leader of the beaver colony. Not that he was aware of the fact or would have cared for the honor had he realized that it was his. To be sure he had won the place by conquest, as all leadership is won in the forest, but it had been so much rough play to him and nothing else.

He climbed clumsily up to the dome of the beaver house and looked about. In the water and on the tops of other houses he saw in the gloaming other beavers, who had been watching the contest. He barked a greeting to them all, and his circus training prompting him, he slid off the pile of sticks and proceeded to give a swimming exhibition to this new audience.

He splashed and dove and plunged and barked joyfully, possibly hoping to make friends with these new-found companions. They seemed but little impressed with his efforts, however, for while he romped one by one they disappeared, scattering to various corners of the pond to begin their night's work, for it was August, and they knew that the time left to them to gather their winter hoard of bark logs was g r o w i n g short.

This was a disappointment to the seal, who had hoped that some of them would join in his romp. He saw them scatter, and was quite puzzled at their conduct. So he followed a group of them down to the lower end of the pool where he watched with interest, but great lack of appreciation, the activities of the industrious little animals.



Among the trees he discovered the form of a man

Worthless Wallace

A huge structure built of stick and short logs and mud was the object of their attention. Wallace could not know, of course, that this was the dam constructed by the beavers to hold back the water that flooded the valley bottom. To him it meant nothing at all and he did not understand why a half dozen of the furry, nocturnal workers were so diligently dragging more branches and small sized logs down to it, and plastering them into place with great hunks of clay mud, which they carried to the dam clasped against their stomachs with their hand-like fore-paws and their big flat tails. He watched them questioningly for a long time, swimming in and out among them and even dragging himself up onto the dam, which proved to be a wide and massive structure. But soon he grew tired of watching and slipped back into the water yapping an invitation to the busy little fellows to leave off their foolish work and have a romp.

But the beavers paid no attention whatever, and finally in disgust, Wallace swam away.

Soon he found himself in a huge canal nearly six feet across and quite deep. Here he came upon more members of the colony, but they were just as busy as the others. Some were swimming down the canal towing short sections of logs or branches of trees. Farther on Wallace found others rolling logs into the canal from a neat little pile on the bank. As each fell into the water a beaver dropped overboard, and taking it in tow carried it down the canal to the pool, where he dragged it under water and anchored it to the bottom in the mud.

At the other end of the canal the seal found still other beavers, working hard at what to him was a most hopeless task. They were digging away the dirt but Wallace could not understand that they were lengthening the canal, and extending it toward a grove of trees where the woodcutters of the colony were at work.

Wallace watched in silence for a long time and tried very hard to understand it all. He even crowded in among the beavers and attempted to imitate them in their digging, for there was a vague idea in the back of his head that this might be some new sort of circus act, for which they would all be rewarded later on with an extra fish or two. But he soon found that his flippers were of little use here, and, discouraged, he crawled out on the bank and contented himself with watching the phanton-like animals who worked silently on in the darkness, diving and digging and carrying loads of mud over to the dam.

Presently a new activity attracted his attention. In the black woods back of him he heard a peculiar crunching sound, and against the velvety background of the night he could see shadowy forms moving about. He recognized them as other beavers and again his curiosity was aroused. With many hoarse grunts he waddled over the uneven, chip-littered ground until he reached the nearest tree. There he stopped in surprise, for he beheld one of his new-found companions with his two short fore paws braced against the bowl of a tree while he gnawed at the trunk viciously. There were other beavers close at hand also similarly occupied, and chips fairly flew, so fast did they work.

Once more Wallace was puzzled; he had not the slightest notion what these animals were doing. He dragged himself over to the nearest tree, and doubtless would have attempted to taste it if it had not been that something happened at the moment to drive the idea out of his head.

The beaver he was approaching suddenly stopped work and slapped the ground sharply with his flat tail several times. The seal recognized this as a signal. It meant danger of some kind he

felt certain, and he started at a labored and awkward gallop for the water. Every other beaver stopped work and hurried for cover.

On the edge of the canal Wallace paused a moment and looked back, just in time to see the beaver give the tree two or three extra hard slashes with his sharp teeth and scuttle for the underbrush. Then to his utter amazement the tree swayed, then cracked and with a swish and a roar began to fall. This was more than he could comprehend, and, with a yap of fright, he plunged overboard and swam swiftly away; nor did he appear on the surface again until he reached the center of the pond.

He came up very close to the big dome of sticks where the veteran beaver was wont to sit and act as sentry while the colony worked, and because the grumpy old chief was not occupying this pinnacle. Wallace climbed up, and, sprawling his length, looked up at the stars that flecked the sky and the pale crescent moon that hung just above the line of soft black evergreens that edged the swelling contour of the mountain across the valley. Wallace was happier and more contented than he had ever been, for he had found freedom and companions.

To be sure, they were peculiar companions, far too serious and phlegmatic to suit him entirely, and they had a most unpleasant propensity for work instead of play. Still, they were better than no companions at all, and as he sat there and watched the little round heads moving here and there in the moonlit water the loneliness that had assailed him vanished completely.

As for the colony, the fact that their chief had been deposed by a stranger seemed to make little difference. This new leader was sitting on the dome of the chief's house keeping guard, which was as it should be, so all must be well with the world. But perhaps the beavers would have proceeded about their night's work with far less assurance of safety had they known that the weary Wallace, with no thought of fulfilling his duties of sentry, presently fell asleep.

Wallace was far from success as king of the beavers. But that really was not his fault, for he was not conscious of the fact that he was king. However, his subjects did not realize that he was a failure, for all that they demanded of their leader was constant watchfulness, and certainly Wallace seemed to be always on the alert. Indeed, he was to be found lounging on the top of the big beaver house even in the daytime when most of the beaver colony was sound asleep. This might have left the impression with the timid, hard-working members of the colony that he was extremely conscientious in his guardianship, had the intelligent animals been capable of that much thought, for they could not know that Wallace preferred to nap out there in the warm sunshine, and that under no circumstances would he choose to spend any time in a cold, damp house of sticks and mud such as they built for their dwellings.

Only once did Wallace enter one of the houses, and then it was purely because of his extreme curiosity to know and understand everything about these strange seals. He was romping about the pool exploring the muddy stump-strewn bottom for trout and suckers, when he saw a beaver swim past and enter a hole at the base of one of these mounds of sticks and mud. Wallace followed the wake of silvery green brown bubbles that the swimming beaver left and flashed into the hole right behind him. This was the entrance to a long dark water-filled passage that reached upward. It was narrow, too, and the seal had a hard time trying to force his bulky shoulders through. But presently he

bobbed to the top and found himself in a huge dome-shaped house that was dimly lighted and that reeked with a peculiar musky odor that seemed to be a characteristic of this peculiar form of seal. Wallace did not like the smell, nor did he like the cheerless interior. In the blackness he could make out several forms, huddled in one corner on a bed of dried and shredded bark.

Wallace went closer and discovered that one of them was the deposed leader. He did not appear to be in very good humor either, for he sat back against the wall with his whiskers flat and his ugly teeth showing. He had given up the leadership to this stranger, but he refused to give up his home without a fight for it. He resented Wallace's intrusion. This was the castle of the king beaver, to be sure, but it was also his castle, built by his own efforts, and he intended to defend it.

Wallace did not think very much of the castle, however. In his estimation it was hardly worth fighting for, and since the furious disposition of the owner was so plainly evident, he decided that it would be wisdom to leave immediately, which he did forthwith, much to the relief of the valiant old warrior.

But though the king's castle did not count for much in the seal's estimation, his dominion did, for the pond was stocked with trout and suckers. Indeed, Wallace raised havoc among the fish of the pool, and as a result waxed fat and contented for quite a while, despite the fact that the suckers and even the trout tasted flat compared with the salt water fish which he was accustomed to. His foraging on the fish of the pool meant nothing to the beavers so far as their food supply was concerned, for they were not flesh eaters.

But the beaver pond could scarcely provide for this gluttonous fish eater for an indefinite period, no matter how well stocked it was, and after several weeks of foraging among the denizens of the pool Wallace began to find that he had harder work to get a square meal each day. Indeed, he took to searching out brook minnows, and even fresh water clams (provender that he had scorned heretofore) in order to get a full meal. This condition began to cause him a certain amount of concern, that later grew akin to discomfort, for with all his freedom and exercise his appetite had increased to enormous proportions.

September wore on, and the seal noted that the beavers were more active than ever. Frost was approaching, and they had little time left to complete their winter stores. Their coats were growing thicker, and there was a tingle in the night air that pleased Wallace. The forest was changing, too, splashes of scarlet and vermilion and gold, blending with russet brown and the dull green of the hemlocks, painted the mountains. Ghostly morning mists gathered over the pool, and in the valley a smoky blue-gray atmosphere lingered all day long. Autumn was at hand.

About this time Wallace began to grow restless again. The fast disappearance of the fish annoyed him. He began to lose interest in his beaver companions, too, for they persisted in working harder than ever.

The time that he did not devote to scouring the pond for fish he spent atop the big dome-like home of the chief beaver, looking off into space. He was looking for something. Back in his brain were confused recollections. Some were of bygone circus days, which were for the most part distasteful. Others were memories of a babyhood spent in a northern rookery, among thousands of seals that barked from spray-splashed ledges and wave-washed ice floes.

Somehow these last memories were clearer and more distinct than those of the

circus and caused him the greatest pangs of loneliness. The ocean called him. Once again he felt the urge to go down stream, and his gaze wandered beyond the beaver dam, and through the valley toward where the trout stream emptied into a river that flowed into the sea.

Then, one day as he sat there peering off into the distance, his attention was attracted to something moving on the beaver dam. Not that this was unusual, for the dam was a highway used by all sorts of forest dwellers. Time and again he had seen deer travel it, occasionally a bear ambled across, and twice in the twilight he had seen a lynx slink by. But this object was not a forest dweller. It was a man; a dark-skinned, black-haired individual, and Wallace recognized him as the one who had fired a shot at him the evening he had come to the beaver pond. It was Indian Joe, the halfbreed poacher.

Wallace barked sharply and slid down into the water, but not before the poacher had caught a glimpse of him. Indian Joe stopped on the dam and scratched his head.

"By gar, him no beaver. Heem hair seal. What he do in here?" He puzzled the question for several minutes.

"Funny ting, by gar. Hair seal ain't wort mooch. Skin no good. But I see Frenchman once he have trained seal wid curcus. Maybe I get good money for heem seal. Anyhow I get heem same time I get heem beavers," and, with a leering grin, he proceeded out to the center of the dam where he deposited an ax, a formidable looking club and some empty gunny sacks.

Indian Joe had long ago promised himself that he would one day turn the beavers in this mountain pond to money despite the fact that they were protected by law. Beaver skins could be converted into coin through underground channels which he knew all too well, and he had only been waiting an opportune time to clean out the pond, dispose of the skins, and hide in the mountains. The moment was at hand.

His plan was a simple one. He meant to cut a big hole in the beaver dam, and drain the water off the pond. When the beavers found the water getting low they would rush to the break to repair it and he would kill them silently with his club. And those that did not come to the dam, he would hunt down in the mud at the bottom of the pond, when the water had drained away completely. He even intended to pull down the beaver houses to get every one.

He had scouted through the forests on either side of the pool and was confident that the mountains were free of strangers. He had ample time to carry out his program, and he proceeded to tear the dam apart, selecting a section in the very center to break through.

This was not easy work, for the beavers had builded securely. But Indian Joe was a woodsman and he worked swiftly and silently. And while he worked, Wallace, from behind the shelter of a beaver house, watched him with a worried expression. The seal was troubled and he was alone, for the beavers were all asleep in their houses. There was nothing he could do save bark, which he did furiously and protestingly.

But Indian Joe paid slight attention to him. He worked fast, dragging out branches and short lengths and scooping away the clay plaster the beavers had used. Soon water began to trickle through the break and this helped the halfbreed, for it forced the opening wider. Before long the trickle had developed into a sizable sluice and the rush of water began to tear away mud and sticks faster than the poacher could break them out. His task was almost done. The water would do the rest.

Still Wallace yapped his bark of warn-

ing. He kept it up incessantly, and presently a round head bobbed to the surface beside one of the houses of sticks and mud. Then another and another appeared. It did not take the beavers long to sense the fact that the dam was broken. Their keen ears caught the sound of rushing water, and their keen eyes saw the stranger on the dam. For a moment they gathered in little groups and seemed to hold council, then presently one, the big old gray-whiskered beaver whom Wallace had deposed, started valiantly toward the dam, undaunted by the formidable looking Indian Joe, who crouched, club ready.

Others followed the old warrior, and in a few moments a half dozen brave little heads bobbed along in his wake, all bent on saving the colony's dam and heedless of the fact that they were going to their doom. And Wallace, not to be outdone by his companions, followed on.

Sol Berger, Sheriff of Winnetonka County, paused in his post office doorway and examined a letter with a foreign postage stamp curiously before he ran a calloused finger under the flap and extracted a draft on a New York branch of a French bank, and a letter immaculately typed on a piece of crested note paper. He read:

"To M. Honorable S. Berger, Sheriff of Winnetonka County, Wainsborough, Maine.

"SIR.—I have the pleasure of informing you that I have inherited the estate of the late Jacques De La Hante, my uncle, and it gives me the pleasure to entrust to you the $200.00 for my creditor, the admirable Peter Van Aken. To this I will be pleased to add $200.00 if you and M. Van Aken will kindly see that Wallace, my seal, is properly put on board ship for France.

"Gratefully yours,
"RENÉ DE LA HANTE."

B'gosh, I wonder if Pete's got that air seal yit. I plum fergot about t' wuthless critter. Looks like he'll bring real money now. Calculate I'll go find out."

A half hour later Sol's buckboard was rattling toward the mountains and Peter's abode.

The stout Hollander went speechless when the sheriff handed him a draft for $200, but when he learned that in addition a like sum would be forthcoming for the safe return of the seal he uttered a groan of despair.

"Dot seal animal, I tought he was word noddings. I dround him like a cat."

"You drowned him! Where!" exclaimed Sol.

"Ches. On'y he dond drount like a cat. He svimt. Come on."

The excited Peter hurried the sheriff back into the buckboard and climbed in himself.

When they reached the bridge spanning the mountain stream from which Wallace had been dropped they both peered into the pool.

"Dot's de cage vot he was in. He's gone," groaned Peter.

"He's gone, sure enough. But—say, he probably went down stream an' I calculate he couldn't git far. There's the beaver pond down t' valley. Bet a dollar he's fetched up there. Come on, let's me and you go on down. 'Tain't on'y a couple or three miles from here."

It was hard going, especially for the rotund Peter, and Sol's couple or three miles lengthened into five. They stopped to explore the depths of every pool but no trace of Wallace did they find. Finally they reached the valley bottom.

"Here's the beginnin' of t' beaver pond," said Sol, "but if there's a seal in here we got about as much chance of finding him as we have of—Shis-s-s! Look! Some one's busted a hole in the beaver dam. By Godfrey, there's t' skunk now

and it's Injun Joe. Wait, I want that feller. We got him with the goods, too."

Hastily Sol slipped his hand inside his shirt and from a holster that he had long since learned to carry in an inconspicuous place under his left arm, he unlimbered a big blue forty-five.

"I usta could shoot a little," he remarked. "Watch!"

Indian Joe was crouched on the edge of the dam waiting tensely for the beavers to come within range of his club. He was getting ready for a vicious blow at the head of the brave old beaver who approached unflinchingly, when above the sound of the rushing water he heard the roar of a forty-five, and his right arm went numb.

With a yell of surprise he leaped to his feet, to find himself covered by Sheriff Sol, who was picking his way around the bank of the pond. He made a move as if to run, but the revolver banged again and the halfbreed's hat bounced clear off his head. After that he stood still until Peter and the sheriff came onto the dam.

"Gettin' you red-handed, Joe, is worth a lot to me and——"

Peter was jumping up and down yelling.

"Loog, loog, dot seal! He iss dere and he iss going down! Loog!"

The sheriff looked in the direction Peter pointed.

A dozen beavers were already swarming about the dam trying hard to stop up the leak. Wallace had trailed on behind them until he reached the break in the barrier. There the swirl of water rushing through the gap had gripped him. For a moment he struggled against the current, which he could easily have breasted. But while he struggled the impulse seized him to go on down stream. With a glad bark he turned about and coasted through the opening on the flood, once more heeding the call of adventure. Peter and the sheriff saw him as he rushed headlong down the trout stream toward the not far distant river and the ocean beyond.

"That's the seal, sure enough! But I calculate he's starting fer France without much help from us, Pete."

"Ches, bud the two hundred tollars!" cried Peter.

"Shucks! This bird's worth a lot more than that to us if we can git him t' town alive. The county's offering five hundred fer him now. Come on, Pete. Don't stand there gaping like a fool, we're making money to-day."

Hiawatha's Mittens

(Author Unknown)

He killed the gentle Mudjokivis,
Of the skin he made him mittens,
Made them with the fur side inside,
Made them with the skin side outside;
He, to get the warm side inside,
Put the inside skin side on the outside;
He, to get the cold side outside,
Put the warm side, fur side inside;
That is why he put the fur side inside,
Why he turned them inside outside.

For the Wireless Amateur

By "Spark Gap"

BOYS of the United States make the best wireless telegraph operators in the world. In no other country besides does the average boy know so much about wireless or take so keen an interest in it. Before the war the United States contained 175,000 wireless stations, large and small, scattered throughout every section of the land. Most of these were amateur wireless stations built and operated entirely by boys. No country in Europe has anything like as many stations.

During the war it became necessary for the Government to close most of these wireless stations and regulate the others very rigidly to prevent any enemy using them for his own ends. Now that the war is happily over the Government has removed these restrictions, and any American boy is free once more to equip and operate a station of his own. The interest in wireless telegraphy is reviving by leaps and bounds and in a short time we shall see more wireless stations in operation than ever before. It will be the purpose of this department to encourage the interest of boys in this fascinating pastime and lend practical assistance each month.

Before going into practice instruction it is important that the boys, who are to become the wireless men of the future, should appreciate the value of such work. Wireless transmission of messages and of the human voice is becoming daily more common. In a few years the entire system of communications throughout the world may be transformed by wireless electricity, and it is important that boys should be able to take their part in it. The amateur wireless station is a great educator and gives the boys who equip and operate it an excellent education in the wonderful new science.

When the call came for wireless men for the great war the amateur operators were able to take a prominent part. Thousands of boys who had taught themselves how to build stations and run them were able to take important positions in wireless stations at sea and on shore. No other country had so vast an army of self-taught wireless operators to call on. Many of the boys who had taught themselves all they knew of the science rose to occupy important positions. It is not generally known that it was an amateur wireless man who was chosen to fly across the Atlantic on the NC-4 on her famous flight.

Wireless electricity again offers an attractive future for any bright, ambitious boy. There are few professions which can be entered with so little preparation, which pay as well from the start, and give one such an opportunity to travel and see the world. The average boy who has learned to operate his own wireless station can with only a few weeks' training fill an excellent position. The possibilities of wireless in the future are very great. The wireless telephone will doubtless be as common in a few years as is the telegraph to-day. The boy who becomes interested in wireless is certain to find a fascinating pastime of rare educational value.

The first consideration in installing a wireless station is to decide on the location

of your aerial. The success of your station is so dependent upon the antennæ that the problem should be thought out very carefully. It may be set down as a general rule that the antennæ should be placed as high as convenient, and have the greatest possible spread. If you want to be sure of good results have the antennæ at least forty feet in height and seventy-five feet in length. It will be better to have them seventy-five feet high and 150 feet long.

Since most amateurs string their aerials convenient to their rooms, there is not much choice left them for position. It should be borne in mind that the neighborhood of tall objects which can act as conductors tends to interfere with the stations. This is especially true of tall chimneys or walls, trolley car wires, or telephone or telegraph wires, tall trees, etc. It is best to have antennæ supported by a tall mast, a flag-pole for instance, standing entirely alone, but these are expensive. Most amateur wireless men are obliged to use a short pole on the roof or a tree or pole in the yard nearby. The masts should be of wood and equipped with a simple pulley, so that the aerial may be raised or lowered easily. If the aerial is rather heavy, be sure to brace the mast so that it will not be affected by this weight or by the wind.

In case you use a tree it will be a good plan to fix a short pole to the top of the tree to keep the wires clear of the leaves and branches. Since it is a simple matter to find a tree thirty-five feet in height, it will be easy, by using a twenty-foot mast, to get an elevation of seventy feet for your aerial.

The best type of aerial for the amateur is the T aerial, consisting of four parallel wires of exactly the same length, connected with the ground, by vertical wires. Some operators prefer copper, others aluminum wire. Iron or insulated wire is not desirable. The antennæ must be insulated carefully from the mast and from all surrounding objects. On the small antennæ simple porcelain cleats, which are very cheap, will serve every purpose.

The wires which connect your aerial with your receiving instrument are called the "lead in" wires. There should be four of these wires connected with the four wires of your aerial, and brought together near the apparatus.

Great care should be taken in grounding the wire. A water pipe or gas pipe will serve the purpose. The pipe should be carefully scraped in order to get good contact, or one of the special clamps used for the purpose secured. In the country where no water or gas pipes are to be found, a well pipe or a sheet of copper or zinc buried in the ground will answer. These sheets should be about four feet square and be buried in moist earth. To connect up your aerial the wires should be led into your station and the ground carefully connected when the station is ready for work.

The amateur wireless man is surprised to find that there are almost an endless number of methods of connecting or "hooking up" the various apparatus of a wireless station. There are a few fundamental rules which the beginner should learn, and later he may improve upon them by inventions of his own.

Although almost any flat top table or desk will answer for mounting the wireless apparatus it is well to make a selection with certain things in mind. The table should be large enough to contain all the instruments without crowding, leaving room for the operator to write. It will be found convenient to have a straight back or upright for the table on which meters, switches and other apparatus may be mounted in full view. The instruments should be so placed that the wires connecting them are as short as possible, since long wires often lead to

confusion. The receiving instruments should be placed for convenience at one end of the table and the transmitting set at the other so that each can be connected up without crossing the wires.

The general principle should, of course, be clearly understood before any attempt is made to connect up and operate a set. It should be remembered that when the electric waves pass through the air after being sent out by some transmitting station, they are picked up by the aerial of your receiving station. Oscillating currents are now set up in the receiving aerial. These waves have a definite length of so many feet, and the aerial must be adjusted to their length in order to get the best results. This is accomplished by using a tuning coil which consists of a cylinder around which a single layer of wire is wound. The sliders or contacts move over the wires just touching them, so that it is possible by moving the sliders to add to or subtract from the amount of wire in the circuit.

The oscillating currents will have no effect on a telephone receiver used for listening in on the circuit, and must first be passed through a device known as a detector. This detector consists of a piece of some material, usually silicon or galena, which is held firmly in a small cup while a fine wire point known as "cat's whisker" is held in light contact with it. Now when the oscillating currents strike the detector they are instantly changed into direct currents. These direct currents pass in turn through the telephone receiver and are changed into a buzzing sound which duplicates the signals sent out miles away by the transmitting station. In some circuits a loose coupler is employed which serves the same purpose as the tuning coil, and is constructed along the same lines. The loose coupler has two windings in place of one, as in the tuning coil, and is therefore much more sensitive. Most receiving sets are, of course, far more complicated than this and employ many other mechanisms, but the general principle of their operation is the same.

The transmission of wireless messages is, of course, the most interesting phase of the work of the wireless man. There are fewer sending than receiving stations operated by amateurs because sending requires more complicated apparatus and therefore more expensive outfits as well as more skill. The Government imposes certain restrictions on the sending stations, requiring the men operating them to pass examinations. The pleasure of sending wireless messages, however, is well worth all the additional trouble and expense.

We know that if an electric spark is made to snap or crack between two metal points, invisible waves or ripples are sent out, which travel at high velocity for great distances. Now it has been found that if these sparks are sent out from a wire elevated in the air at one end and connected with the ground at the other, the waves have much greater force and travel much further. The wireless station is, therefore, equipped with a series of wires suspended high in the air called an aerial.

The sparks are made to snap and send out their invisible waves by means of a spark gap connected with an induction coil or spark coil. The spark consists of two metal rods held a short distance apart and connected directly with the coil. The current is supplied by means of batteries, or in the case of the high powered long distance stations, by dynamos. The coil or transformer produces the spark by generating the electric waves which fly through space. These coils are usually contained in a small box so that the amateur can readily connect

up the apparatus in his circuit. The terminals of the spark gap are usually made of zinc and are so mounted that they can be slid back and forth to vary the length of the gap.

An ordinary telegraph key is connected up in circuit which makes it possible to turn the current off or on by a touch of the finger. This makes it possible to break up the flashes into dots and dashes so that letters may be spelled out by the familiar telegraph code. From one side of the spark gap a wire runs to the ground while from the other a wire runs to the aerial wires. Now, when the key is pressed and the circuit closed the current from the battery flows through the coil. The coil in turn causes sparks to jump across the gap between the wires and this creates electric currents which flow back and forth with great rapidity. These are known as the oscillatory currents. These currents create the waves. The aerial in turn radiates the waves and sends them to a much greater distance than they would travel if the station were without any aerial. Many other kinds of apparatus are employed to render the sending apparatus more powerful and sensitive. The great long distance stations which transmit over sea are, of course, highly complicated but the principle remains the same as in the amateur station.

The Mysterious Trail

By Armstrong Perry

THE Owl patrol built a cabin.

It was at the end of a trail which led from the edge of town two miles into a forgotten tangle of second growth timber, berry bushes and undergrowth.

For a quarter of a mile the trail passed through a swamp. By jumping from hummock to hummock it was possible to reach an occasional bit of terra firma—unless one hopped onto the wrong hummock. The wrong one sank, abruptly or with maddening deliberateness, into deep, black ooze.

Beyond this there was a stream, too deep to ford, too rapid to swim. It was spanned by a slender log. Then a thicket of beeches under which, even on the brightest day, it was twilight.

Several town gangs, suspecting that there must be something of unusual interest to take the Owls afield on every Saturday and holiday, essayed to follow them, or to circle the rendezvous and take it by a surprise attack. One gang was lost in the woods all night. Another came back so saturated with swamp ooze that they were mistaken for children of the negro whitewash man down by the railroad track.

After that, the Owls began to receive numerous applications for membership.

They disclaimed any desire for exclusiveness. The scoutmaster explained that they wanted only to protect the traditions of the patrol, which the owl typified. The test of membership was to be able to name every tree, flower, shrub, bird and animal encountered on the way to the cabin and to follow the trail without assistance. A bird or animal was "encountered" if its call were audible, whether it was seen or not.

A committee of Owls started out with Ted Jarvis, noted for his ability in getting away with things.

"What's that?" asked a scout, pointing to a large animal with horns.

Ted thought they were kidding. "A cow, of course," he answered.

"What kind of a cow?"

Ted sobered. "A Jersey," he guessed.

The committee conducted him back to town. It was a Holstein.

Garth Effelberg tried it. Garth knew quite a lot of botany and he passed the first half mile with flying colors. Then a snake crossed the trail.

Instantly Garth grabbed a stone and took aim.

One scout clutched his arm. Another carefully picked up the snake and held it before his eyes.

"What kind of a snake is it?"

"Garter snake," said Garth, shrinking away.

"Wrong—it's a milk snake," replied an Owl. "One of our best friends—it kills mice and other vermin and saves thousands of dollars' worth of crops every year. Bills are being introduced into our state legislature and two others this year to protect it. Take it home, get one man to vote for it, bring it back to-morrow alive and well, and you can go on from here."

Bumpy Baggs was the next. He had made considerable preparation by gathering specimens of leaves and flowers and asking his teachers to identify them for him. He had also searched the bird books at the library. He was venturesome and, through exploring the surrounding country, had become quite adept at trailing.

Blithely out across the meadows went Bumpy, answering all queries promptly and accurately. Across the swamp he hopped with an ease which indicated either familiarity or an unusual facility in observing where other feet had trod.

At the log-bridged stream he looked triumphantly back for an instanct then balanced on the rustic viaduct. He could see plainly the trail ahead, leading through the beeches toward the promised land.

But pride goeth before the fall. However steady a log may be, it is necessary to watch your step. Bumpy forgot the present instant in anticipation of the future, and his examination ended automatically.

As he came choking to the surface a bowline loop dropped neatly over his head. He thrust an arm through and the Owls pulled him ashore.

He asked for permission to proceed but he was reminded of the rule: "without assistance."

Finally, one day, Digger Dunstant blossomed out in a Boy Scout suit. He wore a Tenderfoot badge and the insignia of the Owl Patrol.

"How did you do it?" the boys all asked as they crowded around him. "Pretty hard work, wasn't it?"

"You bet," replied Digger. "I spent a week getting as far as the cow pasture. It took two to get from there to the swamp and I was a month getting through that and across the creek. And after that—Gee!"——

"What's in the cabin?" they asked.

"Don't know—haven't been inside it yet," replied Digger mysteriously. "They initiated me as soon as I got to the Council Ring and learned everything there. They've got all kinds of rocks and ferns and things you have to learn and you have to build different kinds of fires and tie knots and everything. Then you have to know everything that's tacked up on the outside of the cabin and the tame wild animals they've got and you have to smell what they're cooking inside—um-m-m! and guess whether its going to be bacon and eggs or flapjacks and maple syrup."

Bumpy, well known for his appetite, wiped away the wateriness of his longing mouth. "Gee! I don't see why they have to make all that fuss about lettin' a fellow in," he said.

"An Owl is a wise old bird," was Digger's enigmatical reply, "he listens a lot but is seldom heard."

A Side Car for a Bicycle

By James P. Lewis

ALMOST any boy can make his own side car for his bicycle and add greatly to its usefulness, especially if parcels and papers are to be carried.

It will be necessary to obtain an extra wheel, *b*, Fig. 1, and if a back wheel with its forks can be secured so much the better, but the construction shown assumes that a wheel only is available and a home-made fork is used, as the axle is not large and strong enough to be supported from one side only. For the parts *cc* of the forks, hickory or some other strong wood is used. The block of wood, *d*, is placed between them, at the top, and they are screwed solidly to same, and in addition, a wide strip of sheet iron is wrapped around the joint and fastened with screws. Girders, *e*, *f*, *g*, are made of slightly heavier stock than *c*. Where they are fastened to the frame of the bicycle, the construction shown at Fig. 2 is used, two strips of one-sixteenth inch sheet iron being fastened to the end of wood-piece by two or three rivets which extend from side to side. A small machine-bolt serves to clamp the clips to the bicycle frame. Where *e*, *f*, *g* are fastened to *c* a somewhat similar means as shown in Fig. 3 is used. A fourth girder (not shown) runs from point *s* to a point on the bicycle frame about 15 inches in front of and on a level with *e*. This construction gives a triangular base for the car body. The body is simply a neat wooden box, but should have its edges bound with metal, or otherwise strengthened; it can be mounted on springs if desired. If the whole is painted to match the bicycle, it will present quite an attractive appearance.

It will be seen that the car can be readily detached, by loosening three small bolts.

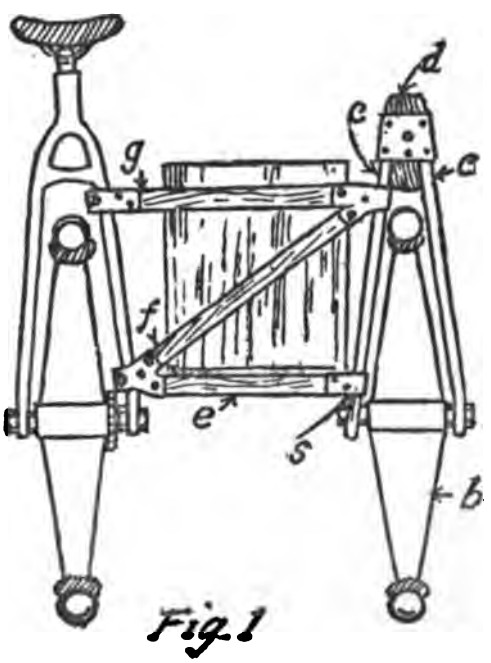


Fig. 1

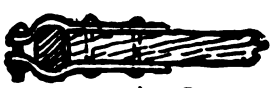


Fig. 2

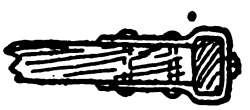


Fig 3

SIDE-CAR FOR A BICYCLE



What's a Boy Scout?

A Glimpse of the Life of the Boy Who "Belongs"



A SCOUT! He enjoys a hike through the woods more than he does a walk over the city's streets. He can tell north or south or east or west by the "signs." He can tie a knot that will hold, he can climb a tree which seems impossible to others, he can swim a river, he can pitch a tent, he can mend a tear in his trousers, he can tell you which fruits and seeds are poisonous and which are not, he can sight nut-bearing trees from a distance; if living near ocean or lake he can reef a sail or take his trick at the wheel, and if near any body of water at all he can pull an oar or use paddles and sculls; in the woods he knows the names of birds and animals; in the water he tells you the different varieties of fish.

A Scout walks through the woods with silent tread. No dry twigs snap under his feet and no loose stones turn over and throw him off his balance. His eyes are keen and he sees many things that others do not see. He sees tracks and signs which reveal to him the nature and habits of the creatures that made them. He knows how to stalk birds and animals and study them in their natural haunts. He sees much, but is little seen.

A Scout, like an old frontiersman, does not shout his wisdom from the housetops. He possesses the quiet power that comes from knowledge. He speaks softly and answers questions modestly. He knows a braggart but he does not challenge him, allowing the boaster to expose his ignorance by his own loose-wagging tongue.

A Scout holds his honor to be his most precious possession, and he would die rather than have it stained. He knows what is his duty and all obligations imposed by duty he fulfills of his own free will. His sense of honor is his only taskmaster, and his honor he guards as jealously as did the knights of old. In this manner a Scout wins the confidence and respect of all people.

A Scout can kindle a fire in the forest on the wettest day and he seldom uses more than one match. When no matches can be had he can still have a fire, for he knows the secret of the rubbing sticks used by the Indians, and he knows how to start a blaze with only his knife blade and a piece of flint. He knows, also, the danger of forest fires, and he kindles a blaze that will not spread. The fire once started, what a meal he can prepare out there in



In Camp

the open! Just watch him and compare his appetite with that of a boy who lounges at a lunch counter in a crowded city. He knows the unwritten rules of the campfire and he contributes his share to the pleasures of the council. He also knows when to sit silent before the ruddy embers and give his mind free play.

A Scout practices self-control, for he knows that men who master problems in the world must first master themselves. He keeps a close guard on his temper and never makes a silly spectacle of himself by losing his head. He keeps a close guard on his tongue, for he knows that loud speech is often a cloak to ignorance, that swearing is a sign of weakness and that untruthfulness shatters the confidence of others. He keeps a close guard on his appetite and eats moderately of food which will make him strong; he never uses alcoholic liquors because he does not wish to poison his body; he desires a clear, active brain, so he avoids tobacco.

A Scout never flinches in the face of danger, for he knows that at such a time every faculty must be alert to preserve his safety and that of others. He knows what to do in case of fire, or panic, or shipwreck; he trains his mind to direct and his body to act. In all emergencies he sets an example of resourcefulness, coolness and courage, and considers the safety of others before that of himself. He is especially considerate of the helpless and weak.

A Scout can make himself known to a brother Scout wherever he may be by a method which only Scouts can know. He has brothers in every city in the land and in every country in the world. Wherever he goes he can give his signs and be assured of a friendly welcome. He can talk with a brother Scout without making a sound or he can make known his message by imitating the click of a telegraph key.



THE SCOUT OATH

On my honor I will do my best:
1. To do my duty to God and my country, and to obey the Scout Law;
2. To help other people at all times;
3. To keep myself physically strong, mentally awake, and morally straight.

THE SCOUT LAW

1. A SCOUT IS TRUSTWORTHY.
A Scout's honor is to be trusted. If he were to violate his honor by telling a lie, or by cheating, or by not doing exactly a given task, when trusted on his honor, he may be directed to hand over his Scout badge.

2. A SCOUT IS LOYAL.
He is loyal to all to whom loyalty is due: his Scout leader, his home, and parents and country.

3. A SCOUT IS HELPFUL.
He must be prepared at any time to save life, help injured persons, and share the home duties. He must *do at least one good turn to somebody every day.*

4. A SCOUT IS FRIENDLY.
He is a friend to all and a brother to every other Scout.

5. A SCOUT IS COURTEOUS.
He is polite to all, especially to women, children, old people, and the weak and helpless. *He must not take pay for being helpful or courteous.*

6. A SCOUT IS KIND.
He is a friend to animals. He will not kill nor hurt any living creature needlessly, but will strive to save and protect all harmless life.

7. A SCOUT IS OBEDIENT.
He obeys his parents, scout master, patrol leader, and all other duly constituted authorities.

8. A SCOUT IS CHEERFUL.
He smiles whenever he can. His obedience to orders is prompt and cheery. He never shirks nor grumbles at hardships.

9. A SCOUT IS THRIFTY.
He does not wantonly destroy property. He works faithfully, wastes nothing, and makes the best use of his opportunities. He saves his money so that he may pay his own way, be generous to those in need, and helpful to worthy objects. *He may work for pay but must not receive tips for courtesies or good turns.*

10. A SCOUT IS BRAVE.
He has the courage to face danger in spite of fear and has to stand up for the right against the coaxings of friends or the jeers or threats of enemies, and defeat does not down him.

11. A SCOUT IS CLEAN.
He keeps clean in body and thought, stands for clean speech, clean sport, clean habits, and travels with a clean crowd.

12. A SCOUT IS REVERENT.
He is reverent toward God. He is faithful in his religious duties and respects the conviction of others in matters of custom and religion.



The Daily Good Turn

A Scout is kind to everything that lives. He knows that horses, dogs and cats have their rights and he respects them. A Scout prides himself upon doing "good turns," and no day in his life is complete unless he has been of aid to some person.

A Scout does not run away or call for help when an accident occurs. If a person is cut he knows how to stop the flow of blood and gently and carefully bind up the wound. If a person is burned his knowledge tells him how to alleviate the suffering. If any one is dragged from the water unconscious, a Scout at once sets to work to restore respiration and circulation. He knows that not a minute can be lost.

A Scout knows that people expect more of him than they do of other boys and he governs his conduct so that no word of reproach can truthfully be brought against the great brotherhood to which he has pledged his loyalty. He seeks always to make the word "Scout" worthy of the respect of people whose opinions have value. He wears his uniform worthily.

A Scout knows his city as well as he knows the trails in the forest. He can guide a stranger wherever he desires to go, and this knowledge of short-cuts saves him many needless steps. He knows where the police stations are located, where the fire-alarm boxes are placed, where the nearest doctor lives, where the hospitals are, and which is the quickest way to reach them. He knows the names of the city officials and the nature of their duties. A Scout is proud of his city and freely offers his services when he can help.

A Scout is a patriot and is always ready to serve his country at a minute's notice. He loves Old Glory and knows the proper forms of offering it respect. He never permits its folds to touch the ground. He knows how his country is governed and who are the men in high authority. He desires a strong body, an alert mind and an unconquerable spirit, so that he may serve his country in any need. He patterns his life after those of great Americans who have had a high sense of duty and who have served the nation well.

A Scout chooses as his motto "Be Prepared," and he seeks to prepare himself for anything—to rescue a companion, to ford a stream, to gather firewood, to help strangers, to distinguish right from wrong, to serve his fellowmen, his country and his God—always to "Be Prepared."

How to Become a Boy Scout

HOW can I join the Scouts? Hundreds of boys ask this question every day.

If you want to become a Scout, the first thing for you to do is to find out whether or not there is a troop organized in your town or city. If there is, you should call on the Scoutmaster of the troop and apply for admission. The Scoutmaster would then tell you just what you would have to do to become a member.

If you live in a large city where there is a Scout Commissioner or Scout Execu-

tive—and nearly every large city has one—it would be better for you to apply to him. He will tell you which troop it would be best for you to join—or possibly he will help you organize a troop of your own.

But if there is no Scout organization in your town your problem is entirely different, for you must have a troop organized. The first thing to do is to get a copy of the official "Handbook for Boys." You may be able to buy one at your local bookstore, but if not you can get one from National Headquarters, 200 Fifth Avenue, New York, N. Y., for 50 cents. Read this book carefully.

Next you must talk with your boy friends and get them interested. When you have enough boys to form a patrol—at least eight boys—you are ready to organize.

Your next problem is to get a Scoutmaster. He must be a man over twenty-one years of age whose good character will be vouched for by others. If you have not already found one who is willing to take charge, you must find one, for you cannot become Scouts until you have a man at the head of your troop. Try all your fathers and brothers and see if one of them will not consent to help you out. If none of them will do this, pick out some other man you know, and try to get him interested. Send his name to the National Headquarters and ask them to write to him. In the meantime, show your man that you mean business. *And don't quit!* If you try long enough you will get one.

Probably your troop will be connected with some school or church or other institution. If so, your scoutmaster will see the head man of the institution and explain to him that a troop committee must be appointed. This committee will be composed of three or more men appointed by the proper authorities of the institution, i. e., Board of Trustees, Directors, Executive Committee, etc. If the troop is not connected with any institution the committee should be composed of prominent men who represent the best elements in the community. These men may be selected by the scoutmaster or they may constitute themselves a committee, for purposes of organization, subject to approval of National Headquarters. The Scoutmaster or the troop committee will apply to Headquarters for Scoutmasters' and Assistant Scoutmasters' application blanks, as well as registration blanks. These will be approved by members of the Troop Committee, who will agree to provide a new leader if it should become necessary to appoint one.

The scoutmaster will ask you and the other boys to sign applications for admission to the troop and these applications will be endorsed by your parents. He will send in your fees, which are 25 cents a year for each scout, and your names will be officially enrolled with those of the tens of thousands of other boys who are members of the great organization. You will then receive an official certificate and be entitled to wear the official badges and uniform and will be in a position to begin your progress in scouting and advance through the various degrees. Possibly you will become an Eagle Scout, and thus reach the highest rank in the organization.



Respect for Country



THE NEW YORK PUBLIC LIBRARY
REFERENCE DEPARTMENT

This book is under no circumstances to be taken from the Building

